An Introduction To Sociology

BY

ARTHUR M. LEWIS

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PREFACE

This book is precisely what its title calls it—"An Introduction to Sociology." It makes no claim to add anything new to sociological theory. It is intended for a class of readers who have not yet been reached by the sociologists of the university chairs. Technical terms are studiously avoided, so that it may be comprehended by men and women who have never passed through the universities or had any special training in this or any other science. While it contains some criticism and much appreciation, its chief function is explanation. It does not for a moment presume to tell the readers all they should know about the science of society. The purpose is to give a condensed history of its origin and development and a general idea of its present position. It is the result of a pains-taking reading of the chief masters of the science, and the author hopes that its effect will be to create or to stimulate an appetite for reading the works which it expounds and from which it freely quotes.

The contents of the book were first presented in the form of twelve lectures from the stage of the Garrick Theater, Chicago, in the autumn of 1911, to an audience composed chiefly of working men. Eleven hundred members of the audience were sufficiently interested in its publication to pay for their copies at the close of the course and before a line of the book itself was written. It will be observed that the lecture form is not followed in the book; there is no attempt at a verbatim reproduction of the lectures themselves. The amplifications of

the platform are neither necessary nor desirable in a book.

The reader who has no previous acquaintance with the literature of sociology will probably be considerably surprised at the immense strides made in the scientific analysis of social phenomena during the last half century. He will also be gratified to learn, that while this country is backward in almost every other science, and in scientific research generally, especially as compared with Germany, in sociology, thanks to the labors of Lester F. Ward, America holds a foremost place.

Our social problems grow ever more acute and attract, in an ever-increasing degree, the serious attention of the thinking world. If these problems are ever to be solved, the solution must be found in the scientific study of their causes and the scientific application of the knowledge derived from that study. For this reason, sociology makes a direct appeal to all who are interested in making the sad world better for our children than it has ever been for us. It is in the hope that this modest volume will make some small contribution in this direction, that the author sends it forth.

ARTHUR M. LEWIS.

Chicago, Sept. 28, 1912.

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An Introduction to Sociology

CHAPTER I

THE THEOLOGICAL DIFFICULTY

The first half of the nineteenth century enriched our modern languages with two great words—Biology and Sociology. The honors in both cases fall to France which still held, as it had held throughout the seventeenth century, the foremost place in philosophy and science. John Fiske attributes the origin of the word "Biology" to De Blainville, but Professor Huxley, with his usual thoroughness, has shown that it was first used in a book published in 1801 by Jean Lamarck, the real father of the modern evolution theory. As to the origin of the word "Sociology," there is no disagreement. The undisputed honor falls to August Comte who first used it in a book written in 1838. Biology was the great science of the nineteenth century, with Lamarck as its Copernicus and Darwin as its Newton. In this century, the foremost place will fall to the "science of society" which is, as Ward well says: "the last and highest landing on the great staircase of education."

The chief root out of which sociology has grown is the ever-increasing conviction of the universality of causation. Science has no existence apart from the idea of law. Wherever we have penetrated the secrets

of the universe thus far we have found "cause and effect" regnant. As Starcke well maintains: "all science is founded on faith in the universality of causation."

Whatever difficulties may have existed as to the application of this concept to the older sciences, they exist no longer. Astronomy, Physics and Chemistry have been given over completely to what the Duke of Argyle called "The Reign of Law." The sciences dealing with living things—the sub-sciences of biology —are rapidly moving in the same direction, and the steadily increasing perception that the same fate awaits the phenomena of social activity has brought society within scientific reach.

This wholly desirable attitude has not been achieved without overcoming obstacles similar to those which long blocked the progress of the earlier sciences. We shall better understand the process if we consider these difficulties at some length.

The barriers which opposed themselves to the founding and developing of sociology were chiefly three. The first was purely theological. It may be stated as "belief in Divine Providence." There was a time when Divine Providence directed the stars and determined the weather, but astronomy has banished it from the one and meteorology is driving it from the other. It has, in fact, been expelled from field after field of human thought and is making its final and hopeless stand in the field of social phenomena. If society were ruled by "divine will" there could be no direct science of society. If the divine will were limited by law, which theologians would hardly concede, there might be a science

of the divine will, and this might serve indirectly as a sort of social science in the second remove.

This would mean, however, the abolition of mysteries which are sacred to the religious mind, and which will only disappear with the disappearance of religion. The poet Cowper observed that "God moves in a mysterious way" and the greater and earlier poet who wrote the Book of Job presented God as an inscrutable mystery: "Canst thou by searching find out God?" In the scientific world belief in divine providence has lost its foot-hold. It is worn only, when worn at all, as a Sunday coat to insure respectability. It is expressed merely as a pious opinion to keep the theological fraternity from snapping at one's heels.

In the ranks of the working class Divine Providence long held sway. In the minds of many it still rules, thanks to their utter lack of scientific education. What with long hours of labor and meager access to real books it seemed as if the laborers could never be emancipated from their superstitions.

Fortunately for them a new educating force has arisen which serves them largely in the place of a scientific training. It is in fact a scientific training in itself. This new emancipating force has been brilliantly expounded by two writers—Paul Lafargue and Professor Veblen. The latter has given it a happy name. He calls it: "The cultural incidence of the machine process."

The working mechanic has indeed outstripped his bourgeois brother in the shedding of outworn beliefs. The scientific education of the bourgeois is of the slenderest, while the machine process has wrought long and well on the mind of the proletariat.

"How comes it," asks Lafargue, "that the bourgeois, who receive a scientific education of greater or less extent, are still trammeled by religious ideas, from which the workers, without education, have freed themselves?" And here, in part, is his answer given in "Social and Philosophical Studies," a book of immense value to the student, and published by Charles H. Kerr & Co., at the easily accessible price of 50 cents:

"The labor of the mechanical factory puts the wage-worker in touch with terrible natural forces unknown to the peasant, but instead of being mastered by them, he controls them. The gigantic mechanism of iron and steel which fills the factory, which makes him move like an automaton, which sometimes clutches him, mutilates him, bruises him, does not engender in him a superstitious terror as the thunder does in the peasant, but leaves him unmoved, for he knows that the limbs of the mechanical monster were fashioned and mounted by his comrades, and that he has but to push a lever to set it in motion or stop it. The machine, in spite of its miraculous power and productiveness, has no mystery for him. The laborer in the electric works, who has but to turn a crank on a dial to send miles of motive power to tramways or light to the lamps of a city, has but to say, like the God of Genesis, "Let there be light," and there is light. Never sorcery more fantastic was imagined, yet for him this sorcery is a simple and natural thing. He would be greatly surprised if one were to come and tell him that a certain God might if he chose stop the machine and extinguish the lights when the electricity had been turned on; he would reply that this anarchistic God would be simply a misplaced gearing or a broken wire, and that it would be easy for him to seek and to find this disturbing God. The practice of the modern workshop teaches the wage-worker scientific determinism,

without his needing to pass through the theoretical study of the sciences."

This also explains why and how the industrial workers of the cities have distanced the laborers of the country.

One of the most hopeful things in the sociological outlook is this unconsciously scientific attitude of the great mass of industrial workers. It is of great importance that the student of the science should have a clear grasp of its causes. It is a clear case of the spread of the idea of the universality of causation in a large and increasingly important division of the community. It, of course, takes the form of a general break down of what Spencer calls the "theological bias." We shall now consider Veblen's exposition of this intellectual result of the mechanical process.

The following passages are chosen—not occurring successively—from Chapter IX of his book, "The Theory of Business Enterprise." The chapter gives the name of the theory in its title: "The Cultural Incidence of the Machine Process":

"The machine process pervades the modern life and dominates it in a mechanical sense. Its dominance is seen in the enforcement of precise mechanical measurements and adjustment and the reduction of all manner of things, purposes and acts, necessities, conveniences, and amenities of life, to standard units. The bearing of this sweeping mechanical standardization upon business traffic is a large part of the subject-matter of the foregoing chapters. The point of immediate interest here is the further bearing of the machine process upon the growth of culture—the disciplinary effect which this movement for standardization and mechanical equiva-

lence has upon the human material. This discipline falls more immediately on the workmen engaged in the mechanical industries, and only less immediately on the rest of the community which lives in contact with this sweeping machine process.

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"Mechanically speaking, the machine is not his (the workman's) to do with as his fancy may suggest. His place is to take thought of the machine and its work in the terms given him by the process that is going forward. His thinking in the premises is reduced to standard units of gauge and grade. If he fails of the precise measure, by more or less, the exigencies of the process check the aberration and drive home the absolute need of conformity.

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"If he takes to myth-making and personifies the machine, or the process, and imputes purpose and benevolence to the mechanical appliances, after the manner of current nursery tales and pulpit oratory, he is sure to go wrong.

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"The machine process throws out anthropomorphic habits of thought. * * * The machine technology rests on a knowledge of impersonal, material cause and effect, not on the dexterity, diligence or personal force of the workman, still less on the habits and propensities of the workman's superiors. * * * It inculcates thinking in terms of opaque, impersonal cause and effect, to the neglect of those norms of validity that rest on usage and on conventional standards handed down by usage.

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"Its scheme of knowledge and of inference is based on the laws of material causation, not on those of immemorial custom, authenticity, or authoritative enactment. Its metaphysical basis is the law of cause and effect, which in the thinking of its adepts has displaced

even the law of sufficient reason. * * * Anthropomorphism, under whatever disguise, is of no use and of no force here.

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"The intellectual and spiritual training of the machine in modern life, therefore, is very far-reaching. It leaves but a small proportion of the community untouched; but while its constraint is ramified throughout the body of the population, and constrains virtually all classes at some points in their daily life, it falls with the most direct, intimate, and unmitigated impact upon the skilled mechanical classes, for these have no respite from its mastery whether they are at work or at play."

Professor Veblen continues the development of his argument with great skill. He contends that the schooling of the machine has led the trades unions into a mental attitude which has no reverence for the common law. And this because the common law is founded on the metaphysical doctrine of natural rights and the sacred theories of personal status and private property, all of which ideas are alien to the logic of the machine process. The machine technology produces this result not so much by contradicting conventional ideas as by ignoring them to the point of causing them to lose their force.

Our author next shows that the machine process is back of the "Socialistic disaffection." His writing on this part of his theme reminds one of the peculiar style used by Galileo and Descartes and others who in the middle ages tried to advocate certain theories without appearing to the vigilant watch dogs of the inquisition to do so. The Professor's subsequent career is evidence enough that it is still hazardous to hold Socialistic

ideas in universities, though, through the sheer increase in numbers, it is becoming less and less conspicuous and therefore less disastrous. This seems to be the only explanation of Veblen's use of such terms as "socialistic vagaries" when his main argument is quite favorable to the socialist idea.

Again, while there is an undercurrent of sympathy for the "Socialist disaffection" there is an open flouting of the pettifogging measures of those whose insight or courage falls short of the program of Socialism. This comes out in the following passage from a footnote, which deserves to be printed in letters of gold.

Speaking of "the unpropertied classes employed in business" and therefore outside the direct impact of the machine process Veblen says:

"This pecuniarily disfranchised business population, in its revulsion against unassimilated facts, turns rather [instead of to Socialism] to some excursion into pragmatic romance, such as Social Settlements, Prohibition, Clean Politics, Single Tax, Arts and Crafts, Neighborhood Guilds, Institutional Church, Christian Science, New Thought, or some such cultural thimblerig."

"Pragmatic romance" and "cultural thimblerig" stir in one a joy such as Keats tells us he experienced when he came across such descriptive phrases as "sea-shouldering whale."

Veblen is considered at length here because he reveals with great clearness one of the master forces making in the direction of Sociology. The book from which the above quotations are made, published by Scribners, and his "The Theory of the Leisure Class," published by MacMillan, have met with no reception at

all consonant with their importance for sociology. "The Theory of the Leisure Class" is a much more valuable contribution to American sociological literature than many more pretentious volumes and for the question under discussion here, the student will be well repaid by a careful reading. The following is from the latter part of the chapter on "Devout Observances":

"The workman's office is becoming more and more exclusively that of discretion and supervision in a process of mechanical, dispassionate sequences. So long as the individual is the chief and typical prime mover in the process; so long as the obtrusive feature of the industrial process is the dexterity and force of the individual handicraftsman; so long as the habit of interpreting phenomena in terms of personal motive and propensity [which is the essence of theology] suffers no such considerable and consistent derangement through facts as to lead to its elimination. But under the later developed industrial processes, when the prime movers and the contrivances through which they work are of an impersonal, non-individual character, the grounds of generalization habitually present in the workman's mind and the point of view from which he habitually apprehends phenomena is an enforced cognizance of matter of fact sequence. The result, so far as concerns the workman's life of faith, is a proclivity to undevout scepticism."

This whole theory of the effect of machinery on thought explains, as Veblen points out, why the Socialists of Germany, while capturing the industrial centers make small headway in the rural districts. In America this is not so pronounced because our farmers have not been steeped for centuries in what Marx called "the idiocy of country life."

Professor Henderson of the University of Chicago, is

reported as saying in a lecture of a few days ago that religion is losing its hold on the business world because business men "associate religion with miracle" and miracle is foreign to the business habit of thought. And this is much more true of the machine worker.

The anti-theological effect of the machine process on the mind of the worker is paralleled by the same effect of the natural sciences on the workers in that field. As Veblen says: "As regards the educated classes, socialistic views are particularly likely to crop out among the men in the material sciences." We refer to Socialism in this connection because it is a conspicuous instance of the steady drift toward a science of society.

The machine process and what might be called the scientific trend work well together toward a common sociological result. Veblen, indeed, makes the machine process the cause of the scientific trend, though there is much to be said for their mutual interaction.

With the exception of a few theological phrases such as "creator" which Darwin used and which, McCabe tells us, he afterward repented, as so much unfortunate truckling to public opinion, the great English biologist is an eminent example of the modern scientific spirit. And Veblen has no hesitation in making Darwin's scientific method the consequence of the intellectual atmosphere generated by the early English machine industry. This is a daring application of "economic determinism" and worth reproducing here in full:

"This early technological advance, of course, took place in the British community, where the machine process first gained headway and where the discipline of a prevalent machine industry inculcated thinking in terms

of the machine process. So also it was in the British community that modern science fell in the lines marked out by technological thinking and began to formulate its theories in terms of process rather than in terms of prime causes and the like. While something of this kind is noticeable relatively early in some of the inorganic sciences, as, e. g., Geology, the striking and decisive move in this direction was taken toward the middle of the century by Darwin and his contemporaries. Without much preliminary exposition and without feeling himself to be out of touch with his contemporaries, Darwin set to work to explain species in terms of the process out of which they have arisen, rather than out of the prime causes to which the distinction between them may be due. Denying nothing as to the substantial services of the Great Artificer in the development of species, he simply and naively left Him out of the scheme, because, as being a personal factor, He could not be stated and handled in terms of process. * * * His results, as well as his specific determination of factors at work in this process of cumulative change (in organic evolution) have been questioned; perhaps they are open to all the criticisms leveled against them as well as to a few more not yet thought of; but the scope and method given to scientific inquiry by Darwin and the generation whose spokesman he is, has substantially not been questioned, except by that diminishing contingent of the faithful who by force of special training or by native gift are not amenable to the discipline of the machine process."

The student who approaches sociology through this book—and this will probably be its function to most of its readers—may as well be told the plain truth here at the outset. Theological ideas, in this, as in any other scientific field, are as so many heavy weights hung to the waist-belt of a foot-racer—rapid progress will be

impossible until they are thrown aside. The immense superiority of the sociological works of Lester F. Ward to those of, say Giddings, for example, is largely due to Ward's rigid adherence to the scientific spirit when theology is in question. As we shall see presently, the acknowledged founder of the science, August Comte, saw clearly that the laying of the theological ghost must be the initial step in the scientific interpretation of social activity.

Happily, in this respect, Sociology is heir to the labors of the giants who toiled in the fields of physical and biological science. All that is necessary for her is to adopt the method and weapons which crowned with success the epoch-making labors of Copernicus, Kepler, Galileo, Newton, Kant and Laplace, in astronomy and physics, and Darwin and his colleagues in organic sciences.

Theology, driven from one field after another, makes its final stand in the science of society. Here it is in its last trench, and while it is discouraging to note that the oft-fought battle must be waged again and again, there is some compensation in the reflection that when it is vanquished here it can never again rear its hoary head to mock the upward struggles of the marching hosts of men.

CHAPTER II

THE FREE WILL DIFFICULTY

Following after and growing out of theological concepts is another belief in violent conflict with the idea of a science of society. This is the much-discussed doctrine of the freedom of the will. If the free will theory, in its ordinary and generally accepted meaning is true, sociology is impossible. That theory, if true, presents a difficulty wholly insurmountable.

This objection was clearly stated by the English Historian, Anthony Froude, who held to both the doctrine and its — for sociology — disastrous consequences. Froude says:

"When natural causes are liable to be set aside and neutralized by what is called volition, the word science is out of place. If it is free to a man to choose what he will do or not do, there is no adequate science of him. . . . It is in this marvelous power in men to do wrong . . . that the impossibility stands of forming scientific calculations of what men will do before the fact, or scientific explanations of what men have done after the fact."

The free will doctrine has never gone unchallenged since the days when Democritus held that all things in the universe, including human actions, were governed by rigid unescapable necessity. The general mass of mankind have always felt that many if not all their acts were impelled by forces beyond their control, and words and phrases were formed to express this feeling. Such

are fate, destiny, fortune, the finger, or the will, of God. The Calvinistic faith, with its doctrine of predestination, is a total denial of free will.

In our day there is a greater and growing general sentiment which echoes the position of John Stuart Mill: "Given the motives which are present to an individual's mind, and given likewise the character and disposition of the individual, the manner in which the individual will act might unerringly be inferred."

This conception, as it presents itself to the general mind, is admirably set forth by Archbishop Whately in his "Elements of Logic":

"Everyone is accustomed to anticipate future events, in human affairs, as well as in the material world, in proportion to his knowledge of the several circumstances connected with each; however different in amount that knowledge may be, in reference to different occurrences. And in both cases alike, we always attribute the failure of any anticipation to our ignorance or mistake respecting some of the circumstances. When we fully expect, from our supposed knowledge of some person's character, and of circumstances he is placed in, that he will do something which, eventually, he does not do, we at once and without hesitation conclude that we were mistaken either as to his character, or as to his situation, or as to our acquaintance with human nature, generally; and we are accustomed to adduce any such failure as a proof of such mistake; saying 'It is plain you were mistaken in your estimate of that man's character; for he has done so and so;' and this as unhesitatingly as we should attribute the non-occurrence of an eclipse we had predicted, not to any change in the Laws of Nature, but to some error in our calculations."

Among philosophers Emanuel Kant is generally supposed to be a free will adherent. That this is a mistaken assumption his statement as follows clearly proves:

"Whatsoever difference there may be in our notions of the freedom of the will metaphysically considered,—it is evident that the manifestations of this will, viz.: human actions, are as much under the control of nature as any physical phenomena. It is the province of history to narrate these manifestations; and let their causes be ever so secret, we know that history, simply by taking its station at a distance and contemplating the agency of the human will upon a large scale, aims at unfolding to our view a regular stream of tendency in the great succession of events; so that the very course of incidents, which taken separately and individually would have seemed perplexed, incoherent, and lawless, yet viewed in their connection and as the actions of the human species and not of independent beings, never fail to discover a steady and continuous though slow development of certain great predispositions of our nature. Thus for instance, deaths, births, and marriages, considering how much they are separately dependent on the freedom of the human will, should seem to be subject to no law according to which any calculation could be made beforehand of their amount: and yet the yearly registers of these events in great countries prove that they go on with as much conformation to the laws of nature as the oscillations of the weather."

While the free will doctrine has still some following in the general, and especially the cloudy-minded religious world, it has been definitely and totally abandoned by scientific men. "There can, of course," says Professor Guenther, "be no question of free will to the scientifically-minded man." "Human actions are," he

elsewhere says, "determined by causes that lie behind, not before them." Says Ernest Haeckel: "The great struggle between the determinist and the indeterminist, between the opponent and the sustainer of the freedom of the will, has ended today, after more than two thousand years, completely in favor of the determinist."

This culmination of the free-will controversy was a necessary fore-runner of the founding of the science of sociology. Among the sociologists this is clearly recognized. The sociologists are determinists by the first demands of their science. They cannot go forward a single step on any other basis. This necessary attitude of the sociologists is well exemplified by one of the greatest among them, Lester F. Ward, who writes as follows:

"The will, that highest power of the mind of which we boast so much, is, if not a chimera, at least a far different thing from what it appears to be. The real paradox here is the truth that it is an effect as well as a cause. Like the universe, like life, like man himself, like the other faculties of the mind, the will is a genetic product of cosmical law. The illusion consists in supposing that our will is subject to our orders, that it is in any sense free. Yet here in the dependence of the will we have a paradox which clings with the utmost tenacity, even to the most enlightened of mankind. They have been compelled to admit the monistic principle in the celestial bodies, in the inorganic world, perhaps in the organic world. They may be even willing to agree that man is himself a genetic product, that brain has been mechanically evolved, that sensation and even thought are the effects of antecedent causes, but, when the great demi-god will is sought to be rolled in, they take fright and resist this last encroachment. These

several classes of mind only show the degrees of causal power with which they are endowed. A full complement of causality never allows itself to be arrested by the consideration of consequences. If the universe is the theater of law, freedom is a delusion."

The method of this book is to allow the authorities to speak for themselves and, as far as possible, in their own language. The reader, by this time, has probably heard enough to be convinced that our ancient friend "free will" has had his day and ceased to be. His painless anæsthetic death at the hands of science adds one more milestone on the road to scientific interpretation of social phenomena.

CHAPTER III

THE GREAT MAN DIFFICULTY

The writer recalls reading in his theological youth a lecture by an eminent preacher of the English Church on "Old Testament History." If memory fails not it was one of Cannon Liddon's Bampton Lectures, though for our purpose the precise authorship is of small importance. The whole body of this "divinity" literature has steadily lost its value with the passing years and the rising tide of natural science. The only value for us of the lecture in question is that it is representative of a common theological attitude toward history. The lecturer had a very simple and easy explanation of Hebrew history of the period of Elisha. It consisted of a comfortable and well-assured explanation of Elisha himself. God foresaw that the Hebrew race was approaching a crisis in its career and that a strong man would be needed to shape its destinies. Therefore, in his creative laboratory he constructed Elisha, equipped him for his task, and sent him forth at the proper moment to fulfill his historic mission.

For the type of thinker who accepts this as an explanation of the human drama, the perplexities of history vanish. All he needs to do is to study the great men and perceive in their acts the will of the great God who shapes them for the occasion. In some quarters, where the insistent demands of the scientific spirit have caused the Deity's share in the proceedings to be

dropped, the "great man" is still held to be the only explanation of the annals of mankind.

For Sociology, however, the "Great Man Theory," as commonly understood, is "a lion in the path," and its removal is an imperative necessity. This does not mean that great men are not great. Nor does it imply any detraction from their fame and credit. What stands in the way is not the Great Man but the "Great Man Theory." In the case of "free will" there is no denial of the existence of the will but only repudiation of the notion that it is free and its decisions uncaused. The science-impeding character of the great man theory lies in its assumption that the great man is a sort of uncaused first cause.

The standard text-book of the theory is Thomas Carlyle's "Heroes and Hero Worship." Like most of Carlyle's books it is a combination of first class writing and second rate thinking. The essential nature of the theory is that it regards history as dependent upon the appearance of some one man at a certain critical moment. Fortunately these human stars usually blazed forth when their light was most needed. Had they failed the tide of history would have set in some other unknown direction. Carlyle's treatment of Luther is a case in point. Without Luther, the Reformation which bears his name had been impossible. For Carlyle, this is not enough. Without this one man, the whole of subsequent history would have been otherwise, including the history of the Western Continent. Carlyle goes the length of making all this hinge not merely on Luther but on one of his acts. Speaking of Luther's behavior at the Diet of Worms, Carlyle says:

"It is, as we say, the greatest moment in the modern history of men. English Puritanism, England and its parliaments, Americas, and vast work these two centuries; French revolution, Europe and its work everywhere at present; the germ of it all lay there: had Luther in that moment done other, it had all been otherwise."

What shines forth most clearly in this extravagant language is not the importance of Luther, but the poverty of Carlyle's sense of historical causation. Modern Sociology has, and must have, an entirely different view. For it the Reformation would have been achieved, Luther or no Luther. The secular powers of Germany and some other countries were ripe for a revolt against the tremendous monetary drain of Rome, and they were ready to form in a solid phalanx behind the first man who should raise the standard of revolt. Without that backing, Luther would have been trampled like a reed. With those forces lying in wait it was only a question of who should be first to strike. To change the simile, the air was full of sparks and had not Luther's fallen in the powder magazine some other would. It was only a question of days or weeks or at the most months. The times had reached a pitch where the explosion was inevitable. In civil history the actual demonstration of this truth is, in the nature of things impossible. Once the deed is done there is no chance for another to prove that he would have done it had the first champion failed.

There is another field, however, where these conditions do not obtain and the proof of the independence of development of any one man is abundant. This is the equally if not more important history of science.

The history of science is replete with instances of dual and sometimes treble and even quadruple independent discoveries of epoch-making things and truths. When the development of ideas reaches a certain stage and the thought of the time is ripe for the next step forward, it is made—and its making clearly depends on no one "great man."

As I have treated this question at length in my chapter on Carlyle in "Ten Blind Leaders of the Blind," the evidence will be condensed here.

The telescope has played an important role in modern thought and if it had not been invented by either of the Dutch spectacle makers, Jansen and Lippershey, in 1609, it is certain Galileo would have made one a little later.

While Priestley was busy in England with a new gas he had discovered, and which Lavoisier in France pronounced to be oxygen, an essential and combustible element in air—and the nemesis of phogiston—the same discovery was being independently made by a poor apothecary, Scheele, in Kjoping, Sweden.

The famous "Nebular Hypothesis" usually attributed, by most American writers, solely to Laplace, was clearly expounded by Kant half a century earlier in his "Theory of the Heavens," and then apparently lost to sight, and, independently, rediscovered by the Frenchman. In Europe, however, Kant's claim is fully recognized and the theory is often referred to as the Kantian Hypothesis.

After Herschel had discovered the new, and then farthest known, planet Uranus in 1781, its movements were seen to be perturbed at a certain point in its immense orbit, a perturbation which could only be explained, by

Newton's gravitation, by the presence of some other large and unknown body in that neighborhood. The dual and independent discoveries of this body (Neptune) by the Frenchman Leverrier and the Englishman Adams is not only celebrated but notorious, it having furnished one of the most unpleasant international controversies as to priority, in the annals of science.

In the history of the mathematics which led to Neptune's discovery, it will be remembered that when the ordinary calculus had ceased to meet the expanding needs of astronomers the "Differential Calculus" had three independent births, in three different countries, through the respective labors of Newton, Leibnetz and Lagrange.

The twin birth of Darwin's theory of "Natural Selection" is probably better known than the nature of the theory itself. Wallace was ready for publication before Darwin and would undoubtedly have been first in print had he been at home to attend to its printing himself. Fortunately Darwin's priority was easily established to the full and generous acknowledgment of Wallace, and science was saved the humiliation of having one of its greatest conquests lashed to the name of a victim of the fantastic vagaries of spiritualism.

These evidences of the independence of scientific progress of any one great man are inexhaustible, and we will close this brief list with one of great importance to Sociology. The "Materialist Conception of History" came before the world under joint authorship. The Communist Manifesto in which it was first announced bore the names of Karl Marx and Frederick Engels. From its interesting preface we learn that, while Engels

awards the laurels to Marx, we should have had this brilliant and revolutionary generalization from Engels, though Marx had never lived.

Despite the steady growth of the evidence against the great man theory it still lingers as a sort of rudimentary idea. There are still living, people who imagine that Rousseau created the French Revolution, that Washington conjured forth the struggle for independence, and that "Uncle Tom's Cabin" abolished American chattel slavery. But the real social forces responsible for these civil transformations are steadily rising into view, and the poetic and romantic interpretation of history is receding in a corresponding degree. With the decay of theological and metaphysical modes of thought, there is an ever-increasing conviction that the great man is more the creature than the creator of the signal advances of his time.

The eloquent advocacy of the theory by Carlyle has been more than counterbalanced by the merciless analysis of Herbert Spencer. Spencer, in his "Study of Sociology," rang the death knell of the great man theory:

"Even were we to grant the absurd supposition that the genesis of the great men does not depend on the antecedents furnished by the society he is born in, there would still be the quite sufficient facts that he is powerless in the absence of the material and mental accumulations which his society inherits from the past, and that he is powerless in the absence of the co-existing population, character, intelligence, and social arrangements. Given a Shakespeare, and what dramas could he have written without the multitudinous traditions of civilized life—without the various experiences which, descending to him from the past, gave wealth to his

thought, and without the language which a hundred generations had developed and enriched by use? Suppose a Watt, with all his inventive power, living in a tribe ignorant of iron, or in a tribe that could get only as much iron as a fire blown by hand-bellows will smelt, or suppose him born among ourselves before lathes existed; what chance would there have been of the steam engine? Imagine a Laplace unaided by that slowly developed system of mathematics which we trace back to its beginnings among the Egyptians; how far would he have got with the Mecanique Celeste? Nay, the like questions may be put and have like answers, even if we limit ourselves to those classes of great men on whose doings hero-worshippers more particularly dwell—the rulers and generals. Xenophon could not have achieved his celebrated feat had his Ten Thousand been feeble or cowardly, or insubordinate. Caesar would never have made his conquests without disciplined troops, inheriting their prestige and tactics and organization from the Romans who lived before them. And, to take a recent instance, the strategical genius of Moltke would have triumphed in no great campaigns had there not been a nation of some forty millions to supply soldiers, and had not those soldiers been men of strong bodies, sturdy characters, obedient natures, and capable of carrying out orders intelligently."

Thus, Spencer, reviewing dramatic events in European history, concludes:

"If you should wish to understand these phenomena of social evolution, you will not do so though you should read yourself blind over the biographies of all the great rulers on record, down to Frederick the Greedy and Napoleon the Treacherous."

CHAPTER IV

AUGUST COMTE—THE LAW OF HUMAN DEVELOPMENT

The science of sociology, by common consent, begins with August Comte. Like all other departments of thought it had its more or less distinct foreshadowings —as Spencer would say, its adumbrations—in the ancient world, but its birth as a science, properly so-called, is largely the result of the labors of the French Positivist and founder of "Positivism."

A system of social science is the last thing to be looked for in the works of Comte. Such a system must be the ripe result and not the beginning of the science, and we have no right to expect one in the writings of its great pioneer.

Comte did indeed put forth considerable effort in this field and even went so far as to give the chief outlines of the society of the future. In all this he failed pitifully. Those who know only of his ideas in this field can form no opinion of his tremendous contribution to modern intellectual advancement.

Comte did two things. He did them so well, they will forever remain as monuments of his genius. They were great things and will rank always as among the notable achievements of the mind of man.

These two things are: The law of human development, and the classification of the sciences. They will form the respective subjects of this and the following chapter.

Thanks to the labors of Harriet Martineau, English

readers have an advantage over the readers of the French original. In her translation she has condensed the six French volumes into one English one and sacrificed little but the repetition incidental to work done in the form of lectures, and extending over a period of twenty years.

Comte's "Law of Human Development" is fundamental to his whole philosophy and it throws a flood of thought on the phenomena of social and scientific progress.

As to the nature of this law we will allow its discoverer, through the medium of Miss Martineau, to speak for himself. The third paragraph of the first chapter reads as follows:

"From the study of the development of human intelligence, in all directions, and through all times, the discovery arises of a great fundamental law, to which it is necessarily subject, and which has a solid foundation of proof, both in the facts of our organization and in our historical experience. The law is this: That each of our leading conceptions—each branch of our knowledge—passes successively through three different theoretical conditions: the Theological, or fictitious; the Metaphysical, or abstract; and the Scientific, or positive. In other words, the human mind, by its nature, employs in its progress three methods of philosophizing, the character of which is essentially different, and even radically opposed; viz., the theological method, the metaphysical and the positive. Hence arises three philosophies, or general systems of conceptions on the aggregate of Phenomena, each of which excludes the others. The first is the necessary point of departure of the human understanding; the third is its fixed and definite state. The second is merely a state of transition."

The insight displayed in the above passage is all the more amazing when one remembers it was written in the pre-Darwinian days. Here is convincingly stated, what has since become universally admitted among scientific men, that theology belongs to the infancy of the human race. Thus has theology, which was described by Mr. Gladstone, as "the crown and flower of human knowledge," become the pariah of the scientific world.

No writer, with the possible exception of Karl Marx or Lester F. Ward, recognized more clearly the essentially reactionary character of theological thinking. When Comte spoke of it as "theological, or fictitious," he dealt it a terrific blow. Only such an iconoclast could have founded modern sociology.

Comte's "law of human development" is a radical rupture with the general mental attitude of his day, and in this lies its chief virtue. Men who trod mincingly, and timidly avoided the impact of the prejudices of their time, have done useful work, but they could never be great pioneers in the world of thought. The judicious time-server is swallowed in the maze of his own apologetics. Only the fearless man becomes a milestone in the march of mind.

We might now proceed to the further statement of Comte's "law" in language of our own which would avoid the grievous blunders into which the brilliant Frenchman fell, but again we will quote his painstaking translator:

"In the theological state, the human mind, seeking the essential nature of beings, the first and final causes (the origin and purpose) of all effects—in short absolute

knowledge—supposes all phenomena to be produced by the immediate action of supernatural beings.

"In the metaphysical state, which is only a modification of the first, the mind supposes, instead of supernatural beings, abstract forces, veritable entities (that is, personified abstractions) inherent in all beings, and capable of producing all phenomena. What is called the explanation of phenomena is, in this stage, a mere reference of each to its proper entity.

"In the final, the positive state, the mind has given over the vain search after absolute notions, the origin and destination of the universe, and the causes of phenomena, and applies itself to the study of their laws—that is, their invariable relations of succession and resemblance. Reasoning and observation duly combined, are the means of this knowledge. What is now understood when we speak of an explanation of facts is simply the establishment of a connection between single phenomena and some general facts the number of which continually diminishes with the progress of science."

In the above passage the fundamental error into which Comte fell and which stamps and vitiates all his writings, stands plainly forth. In this glaring and persistent blunder is the explanation of the tardy recognition of the real merit of his labors. But for this error Comte might have had almost as rapid and signal a triumph as Darwin himself.

Darwin's errors were incidental and advanced with small enthusiasm. His hopeless theory of Pangenisis, for example, is presented as a "provisional" theory, and its relegation to the scrap heap in no way affected the bulk of Darwin's work.

Comte's errors, on the contrary, crop out everywhere and are defended by him with an emphasis often lacking when he is advancing his really great truths.

Comte's grand error lies in his failure to differentiate between "efficient causes" and "final causes"—*causæ finales* and *causæ efficientes.* Final causes belong to theology and are properly denounced and discarded, but efficient causes are essentially a part of the scientific method, and should have been explained and defended. In his violent reaction against the former, Comte allowed himself to be drawn into a sweeping inclusion of the latter. The unfortunate but inevitable result has been that many scientific men have cursorily read his work, and regarded him with suspicion, when, had they looked beyond his error they would have hailed him as a brother. With the lapse of time this mistaken estimate is being corrected and Comte is coming to his own.

The limits of this work do not allow an extensive treatment of this question and the reader is now referred for its further development to the earlier part of the first chapter of Lester F. Ward's two-volume masterpiece: "Dynamic Sociology," a work about which we shall have much to say later and from which we now quote:

"While, to the mind of all other philosophers, the arbitrary, original, and the final cause stand in plainest contrast with the necessary, efficient, or mechanical cause, the former being, as Comte justly asserts, the basis of all theological reasoning, while the latter seems the almost indispensible postulate of science itself, he fails utterly to perceive any difference between them, and is found attacking with equal vehemence conclusions flowing from the one and the other class."

And again:

"As a further and necessary consequence of this ob-

stinate blindness, we find Comte multiplying the number of what he calls 'primordial' problems beyond the limits of finite powers, impossible for man ever to solve, and fit subjects only for the labors of theologians and metaphysicians. Among these it is amusing to notice quite a number which were actually solved during Comte's own life-time. For example, he repeatedly asserts that the chemical constitutions of the heavenly bodies belong to this class of insoluble problems; yet, even while he wrote, Kirchhoff and Fraunhofer were collecting from the sun and the stars the evidence of their composition."

Thus did Comte join together things which are, and should be kept, separate.

For illustration of their essential difference let us take the origin of the earth. According to the theologian who explains the origin of the earth in terms of its purpose—its final cause, the earth was created by the Almighty to be the dwelling place of man, while the scientist smiles at so childish an explanation, and seeks the efficient mechanical cause of its origin in the nebular hypothesis of Kant and Laplace.

All this, however, does not affect the validity or value of Comte's "law of development" to which we now return.

There are two interesting and important features of this law which are presented by Comte as its grounds and evidences. The first we shall mention briefly here as it will come up for further consideration in the ensuing chapter. This is that every science, in the course of its progress, passes through the three stages or periods to which the human race itself is subject. Every

science is, at its birth, theological in character. Later it throws off the swaddling clothes of its babyhood and appears in the metaphysical garb of its youth. Ultimately it emerges into the full dress of its scientific maturity. Says Comte:

"There is no science which, having attained the positive stage, does not bear the marks of having passed through the others. Some time since it was (whatever it might be now) composed, as we can now perceive, of metaphysical abstractions: and, further back in the course of time, it took its form from theological conceptions. We shall have only too much occasion to see, as we proceed, that our most advanced sciences still bear very evident marks of the two earlier periods through which they passed."

Before we proceed to the second evidence we will consider Comte's usage of the word "positive." This is important inasmuch as it is Comte's most frequently used term and indeed appears in a title role, Comte naming his system "The Positive Philosophy."

Fortunately Comte's use of the term and its popular usage are practically identical. In popular usage "positive" is chiefly an expression of emphasis. We say a thing is positively so when we feel sure of the fact or facts. We are positive of a thing when it can be demonstrated, as in the case of the majority of universally accepted scientific truths, especially in the experimental sciences. Fitting examples are, the functions of the bodily organs as demonstrated in physiology, and the composition of bodies and gases as shown by chemical analysis and synthesis. Thus positive and scientific, as adjectives, are practically synonymous, and are frequently so used by Comte. There is not the least excuse

for any attempt to cloud with mystery, the word positive, as it is used by the founder of modern sociology.

The second ground of the "law of human development" has to do with the individual. Comte holds that the three periods of race development are re-enacted in the life of the individual. He states it as follows:

"The progress of the individual mind is not only an illustration, but an indirect evidence of that of the general mind. The point of departure of the individual and the race being the same, the phases of the mind of man correspond to the epochs of the mind of the race. Now each of us is aware, if he looks back upon his own history, that he was a theologian in his childhood, a metaphysician in his youth and a natural philosopher in his manhood. All men who are up to their age can verify this for themselves."

Of course, it is obvious that a person still in the thrall of theological beliefs would present no evidence of the operation of this law. Such would only constitute examples of mental development arrested at the sucking bottle stage.

It is well worth noting that this is not the only "recapitulation theory" in modern thought. Comte's theory that the experience of the individual recapitulates the experience of the race applies to the mental world. Modern biology gives a similar theory in explanation of certain evolutionary phenomena in the organic world.

The biological recapitulation theory broached by Walther and Meckel, and still more cogently advocated by Ernest Von Baer early in the nineteenth century, found its chief exponent in Ernest Haeckel. This theory belongs to the science of embryology in which Haeckel

is one of the highest authorities. The theory, briefly stated, is, that the chief stages of organic evolutionary development which mark the rise from moneron to man are repeated or recapitulated in the nine months' life history of the human embryo before the infant comes forth into the world. This "biogenetic law" as Haeckel calls it, is well stated and illustrated by his fellow countryman and fellow scientist, William Boelsche, in "The Evolution of Man." "The biogenetic law," says Boelsche, "recognizes in the embryo the portrait of the ancestor."

Bolsche also shows that the "biogenetic law" is not limited in its operation to the human family but is active throughout the animal kingdom. He says:

"No matter what embryo we may study, whether it is that of a lizard, a snake, a crocodile, a turtle, ostrich, stork, chicken, canary, duckbill, marsupial, whale, rabbit, horse, or finally a long-tailed American monkey or anthropoid (man-like) gibbon—the embryo at a certain stage of its development always shows a perceptible tadpole or fish stage. Its neck shows the mark of the gills. Furthermore, the limbs which the embryos are just forming at this stage have likewise the plain outlines of fins."

This theory has also been clearly and forcefully stated by an American who has laid the people of his country under heavy and lasting obligations by his brilliant and thoroughly human contributions toward a higher and nobler standard of education—Professor J. Howard Moore, instructor in biology at the Crane High school. Says Professor Moore, in his "Universal Kinship":

"The embryonic development of a human being is not different in kind from the embryonic development

of any other animal. Every human being at the beginning of his organic existence is a protozoan, about 1/125 inch in diameter; at another stage of development he is a tiny sac-shaped mass of cells without blood or nerves, the gastrula; at another stage he is a worm, with a pulsating tube instead of a heart, and without head, neck, spinal column, or limbs; at another stage he has as a backbone, a rod of cartilage extending along the back, and a faint nerve cord, as in amphioxus, the lowest of the vertebrates; at another stage he is a fish with a two-chambered heart, mesonephric kidneys, and gill-slits, with gill arteries leading to them, just as in fishes; at another stage he is a reptile with a three-chambered heart, and voiding his excreta through a cloaca like other reptiles; and finally, when he enters upon post-natal sins and actualities, he is a sprawling, squalling, unreasoning quadruped. The human larva from the fifth to the seventh month of development is covered with a thick growth of hair and has a true caudal appendage, like the monkey. At this stage the embryo has in all thirty-eight vertebræ, nine of which are caudal, and the great toe extends at right angles to the other toes, and is not longer than the other toes, but shorter, as in the ape."

This biological theory is given at length here not only because it supports Comte's theory by analogy but because it seems highly probable that the two principles are not mere analogies but have a much closer relationship.

In these materialistic days we have learned that thought is a function of the brain and that the character and quality of the thinking is very largely, probably entirely, dependent on brain organization.

If it be true, as the biogenetic law holds, that the human creature comes into the world with the brain de-

velopment and therefore the mental equipment of a rather remote savage ancestor, we may cease to wonder that theological beliefs had a peculiar attraction for us in our early years.

CHAPTER V

COMTE'S CLASSIFICATION OF THE SCIENCES

In Comte's system, the thing which stands second, if indeed, it is not equal, in importance to the "law of human development" is his classification of the sciences. As will appear, it is important for sociology because it reveals the character of the science of society and places it in its proper relation to other sciences. Thus we get an estimate of its scope and importance as a branch or department of knowledge.

In this field of classification Comte did an immense service, not only to sociology but to all the sciences. Especially did he serve the cause of education by organizing scientific knowledge in a comprehensive order, lifting it forever out of the confused, scattering and disjointed maze in which he found it.

In classifying and arranging the sciences in their respective positions, Comte did not place them side by side as so many co-equal brothers. Rather he placed them in position of sequence or succession comparing closely with the relation of parent and offspring. One science is placed at the head. The next is derived from it, and is dependent upon it. In this way Comte traces the main line of descent throughout the entire range of human knowledge. This achievement alone will assure the great Frenchman a permanent niche in the Pantheon of the immortals.

The main principle of the classification is the evolutionary principle later made familiar by Spencer. The

list begins with the most general and therefore the most inclusive of all sciences. It then proceeds step by step to the less and less general, but more and more complex sciences. It thus conforms to Spencer's formula of progress from the simple to the complex.

As Lester F. Ward states it: "Each new science, as we descend the scale, is less general, and therefore is embraced within the limits of the preceding, to which it stands in the true logical relation of species to genus, while at the same time possessing special characteristics of its own which distinguish it from all above it."

Here is the order as it appears in the Positive Philosophy:

(1) Astronomy.
(2) Physics.
(3) Chemistry.
(4) Biology.
(5) (Cerebral Biology; i. e.: psychology.)
(6) Sociology.

It will be easily seen how thoroughly this arrangement complies with the idea of a decreasing generality and increasing complexity. It also, and for this very reason, realizes the notion of each succeeding science being "embraced," as Ward uses the term in the above quotation, in its predecessor. Astronomy deals with celestial bodies and the laws relating to them. Physics deals with molar and molecular processes. Chemistry deals with atomic processes. In the natural order of things all these come before life which is the subject of biology. Biology dealing with organic processes precedes and is the parent of psychology which deals with psychic processes. Out of these mental processes come social

relations and social processes which are the subject-matter of sociology.

It may well be that Comte's chief claim to fame may finally rest on his having been the first man to recognize the grand unity of all things, from the whirling nebulæ to systems of taxation. In this respect Comte has had but one successor, Mr. Herbert Spencer, the author of the "Synthetic Philosophy." When two men, whose genius is of the highest order, labor upon the same problems, dealing with the same subject-matter, it would be somewhat surprising if the results did not bear some general resemblance. This is precisely what happened in the case of Comte and Spencer. This general resemblance has led some to the mistaken conclusion that Spencer was merely a disciple of his French predecessor, and this conclusion has been warmly and justly repudiated by Mr. Spencer himself.

Spencer, in his efforts to disconnect himself from Comte, has undoubtedly gone to the opposite extreme. He denied flatly even a general resemblance between his own classification of the sciences and the classification of Comte. The documents which throw the greatest light on this subject are two letters which passed between Mr. Spencer and Lester F. Ward, which letters are reproduced as a very extensive foot note on page 65 of Ward's "Pure Sociology."

In the year 1895 Mr. Spencer received and glanced over the essay by Ward on "The Place of Sociology Among the Sciences." Mr. Spencer wrote to the author saying that in glancing through it he was "startled by some of its statements. Spencer declares himself amazed by Ward's statement that, "Spencer himself,

notwithstanding all his efforts to overthrow it, actually adopted it (Comte's classification) in the arrangement of the sciences in his Synthetic Philosophy." Against this statement Mr. Spencer argues at some length. He explains that he omitted dealing with inorganic nature in his "Synthetic Philosophy" simply because the scheme, even as it stood, was too extensive.

"Two volumes were thus omitted—a volume on astronomy and a volume on geology. Had it been possible to write these in addition to those undertaken, the series would have run—astronomy, *geology,* biology, *psychology,* sociology, ethics. Now in this series, those marked in italics do not appear in the Comtean classification at all. In the part of the Synthetic Philosophy as it now stands, the only correspondence with the Comtean classification is that biology comes before sociology; and surely any one would see that in rational order the phenomena presented by a living individual must come before that presented by an assemblage of such living individuals. It requires no leading of Comte for any one to see this."

Notwithstanding this sweeping disclaimer on the part of Mr. Spencer the position taken by Mr. Ward in the first place remains unshaken. This will appear when we follow Mr. Ward's example and reproduce side by side the order of the classification adopted by each:

SYSTEM OF AUGUSTE COMTE.	SYSTEM OF HERBERT SPENCER
1. Astronomy.	1. Astronomy.
2. Physics.	2. Geology.
3. Chemistry.	3. Biology.
4. Biology, including	4. Psychology.
5. Cerebral Biology.	5. Sociology.
6. Sociology.	6. Ethics.
7. Ethics.	

Both Comte and Spencer begin with astronomy. The first difference appears with the second choice. Comte follows astronomy with physics and chemistry; Mr. Spencer chooses to occupy this space with the science of geology. In thus diverging the advantage is undoubtedly on the side of the Frenchman. This classification of the sciences is not intended to include the name of every science, but only of those which make the trunk of the tree; the branches and twigs fall into their proper places and are included by implication. All Comte's terms in the series are sections of the trunk, with the exception of the last. Mr. Spencer on the contrary, after beginning with the primary section of the trunk, introduces a branch, as geology has no proper place in such general categories. As Ward very properly maintains, in such a general classification geology would be a subdivision of astronomy, just as zoology is a branch of biology and not entitled to a place in this list. After this departure there comes a reunion at biology. Mr. Spencer charges that the division is reopened immediately following biology, inasmuch as he places psychology as next in succession, whereas Comte does not include psychology at all. In this Mr. Spencer is mistaken. His mistake would have been spared had he read his French predecessor more closely.

Psychology is fully treated by Comte under the head of Cerebral Biology. It would have been better had Comte given cerebral biology a line to itself in his list, but his not doing so does not justify the assertion that he omitted it from his scheme. On the contrary, his reason given for the omission stamps him as one of the most daring thinkers of his time. Comte explains that

his refusal to separate biology and psychology is due to his belief that they are inseparable. He takes the essentially materialistic position that the mental processes are based in the organization of the brain, and that all mental phenomena are dependent on physiological organization and function. In this proclamation Comte clearly anticipated the science of our time. The rest of the categories are identical. Spencer concludes with ethics and Comte added ethics as the final term of his series in his later work "Polytique Positive." In this the two philosophers fell into a common error—an error of precisely the same nature as that which led Spencer to place geology in his category. Ethics, as we are coming to see more clearly every day, is merely a division of sociology and has no more right to follow sociology in this main classification than botany would have to follow biology.

Comte has several methods by which the consistency of his classification is tested. The first has already been given—consisting of procession from general to special, or from the simple to the complex.

Another test which Comte regards as important and for which he claims complete originality is as follows: The three principal methods of science are observation, experiment and comparison. As we proceed in Comte's hierarchy from Astronomy at the beginning to Ethics at the end there is, as Comte argues, a progressive application of these methods of research. In Astronomy, the most general and simple of the sciences, observation alone is available; in Physics, which comes next, experimentation is possible as well as observation. When we

reach chemistry, experiment is the chief weapon, while in biology, sociology and ethics we depend mainly on comparison.

We now come to one of the most valuable of Comte's theories. He insists that another test of the validity of his scientific categories is to be found in the state of positiveness at which any science has arrived. Each science, like each individual and like the race itself, passes through the three successive stages, theological, metaphysical and positive.

Astronomy, the most general of all, has passed through the theological and metaphysical stages and has now reached the positive or scientific stage. This is undoubtedly the case though the uninformed often make their first appeal in behalf of religious beliefs to the majesty and grandeur of the heavens. There is in reality no department of human thought where the supernatural has been so completely abolished and natural law recognized as supreme, as in astronomy. It is a long time since any scientist of repute tried to find in astronomy a niche in which to hide his gods. Lester F. Ward well says: "About the last instance of this kind was that of Newton, who brought in the divine agency to account for so much of observation as his theory failed to explain, and this is now set down as one of the unfortunate weak points in his biography to be forgotten as fast as possible."

Physics, which comes next in generality and next in the classification, although next most positive, is still in the grip of metaphysical conceptions. In biology, metaphysics and theology still have a hold, but every day

sees the biological sciences become more positive and less theological and metaphysical.

Now we come to that science of which Comte is generally conceded to be the founder, the science of society—sociology. Comte justly declares this late-born and highly complex science to be still in the theological and metaphysical stage, with theological ideas dominating. This is in itself proof that the science is in its infancy, just as a theological type of mind was inseparable from the infancy of the race, and seems to be inseparable from the infancy of the individual. In ethics the case is even worse.

The whole development of society is popularly supposed to be subject to providence; to control of a divine will which is independent of law and the fiats of which cannot be previsied or even understood. This means death to science wherever it may be found and the history of science is the story of the overthrow of this theological position in one field after another. This was accomplished by the discovery of those laws of nature—or "methods of nature" as Lewes, Comte's great disciple, called them—which really prevail everywhere in the universe.

Newton, Kant and Laplace drove theology out of astronomy by discovering gravity and nebulæ. Mayer, Helmholtz and Lavoisier emancipated chemistry from superstition with the conservation of energy and the indestructibility of matter. Lamarck, Darwin and a great army of their colleagues and disciples have since Comte's day driven the shadowy spectres of theology out of biology with evolution and natural selection. Comte struggled to do as much for Sociology and failed

completely. His great merit is that he saw the need of such a science and foresaw the nature of its task.

Later in this book we shall deal at considerable length with the sociology of Lester F. Ward. While we are considering, however, the classifications of Comte and Spencer, it seems fitting to present the classification which Mr. Ward makes the basis of the first volume of "Dynamic Sociology." Ward's improvement over Comte and Spencer lies in his reduction of the number of basic concepts to three—primary, secondary and tertiary. These three divisions cover the evolution of the universe and its contents. These are called by Ward "aggregations" and are as follows:

Primary aggregation—inorganic—chemical relations.

Secondary aggregation—organic—vital relations (including psychic relations).

Tertiary aggregation—social—social relations.

It will be observed that Ward's primary aggregation, dealing with inorganic phenomena, covers the field occupied by Comte's astronomy, physics, and chemistry and by Spencer's astronomy and geology. The secondary aggregation covers Comte's and Spencer's biology and psychology while the tertiary aggregation covers their sociology and their ill-considered final term, ethics. This classification by Ward has the evolutionary character and the great simplicity which mark all his work, and which constitutes Mr. Ward the greatest living sociologist.

The great merit of Comte and Spencer lies in the fact mentioned early in this chapter. They alone in all

history have attempted to, and in great part succeeded in, co-ordinating the field of universal knowledge. We are beginning to understand that science does not consist of a great mass of facts, but rather in the ascertainment of the laws which lie behind the facts and which constitute their relationship to each other. The supreme thing in science, therefore, is not the facts themselves but rather their relationships, and as the universe is undoubtedly one grand unity all its phenomena must be related. A real investigation of the universe consists in the discovery of these relationships of facts, which give their meaning.

Ward, in Dynamic Sociology, says:

"From the array of great names which philosophy and science have given to the world, I have singled out those of August Comte and Herbert Spencer as the subjects of these brief sketches, not so much in consequence of any assumed pre-eminence in these two men above others, as because they alone, of all thinkers of the world, have the merit of having carried their generalizations from the phenomena of inorganic nature up to those of human action and social life. Of all the philosophers that humanity has brought forth, these two alone have conceived and built upon the broad principle of the absolute unity of Nature and her laws throughout all their manifestations, from the revolutions of celestial orbs to the rise and fall of empires and the vicissitudes of social customs and laws. This grand *monistic* conception is the final crown of human thought, and was required to round out philosophy into a form of symmetry, whose outlines, at least, admit of no further improvement."

It is hardly necessary here to go at great length into the absurd utopian social scheme which Comte advanced.

It has been abandoned everywhere except by here and there a belated follower.

He was opposed to the use of that powerful weapon which the working men of his day were already looking toward—political action. His condemnation of this method was aimed at the precursors of the present Social Democrats. He naively explains that he expects the rich to support him in this attitude—as they did, of course, so long as it only meant political action by their opponents.

In Comte's positivist society there were to be four social orders. Capitalists to supply the direction of industry; workers to give their labor for production; women who were to provide social feeling; and a new priesthood of philosophers who were to provide education and arbitrate all difficulties between capital and labor, and persuade labor not to resort to force or political action but always give heed to the moral suasion of their superiors.

Comte wrote a great deal of extravagant and senseless flattery of women in general, and his own wife in particular, but he nevertheless proposes to leave about their wrists that old and cankering chain—economic dependence. Women are to be supported like all the other orders, by the labor of the workers, who are to be men only. Capitalists are to have an honored place as direcctors of industry, and there is some considerable space and effort devoted to the folly of Socialists who propose to abolish them. The evolution of the capitalist from a useful director to a useless parasitic owner, although it had begun, was, as yet, invisible to Comte.

All this was to be brought about by positivist clubs, which were to be established in all the cities of the civilized world and have for their object the propaganda of this philosophy with its new-old social order.

It is another case of the irony of fate that such clubs and groups have been established in almost every town and city in the civilized world—but alas they are not composed, as Comte dreamed, of the advocates of a four-class society; they are made up of the Social Democrats he so fluently condemned. And these Social Democrats advocate a society that will be classless, where women will be economically independent of men or each other, where the capitalist will be transformed into a worker, no matter how much he may protest against the metamorphosis, and the workers will direct their own affairs without requiring hierarchies of alleged superiors to do it for them.

CHAPTER VI

HERBERT SPENCER—STRUCTURAL SOCIOLOGY

Of Herbert Spencer, Ward says, "he probably deserved the title of England's greatest philosopher," and he adds, "when we have reached England's greatest in any achievement of mind, we have usually also reached the world's greatest."

Whatever criticism may be made of the sociologists, they cannot be justly charged with having neglected the subject of religion. The part played by religion and theology in the social process, receives very serious and extensive treatment at the hands of Comte, Spencer, and Ward.

For a time Spencer was hailed with enthusiasm by many religionists because he presented what seemed to be a satisfactory solution of the age-long war between religion and science. Spencer did undoubtedly solve this problem. He pointed out that the struggle between the two forces was due to a misunderstanding as to their proper and legitimate territories. In order to remove this misapprehension forever he divided the universe into two parts—the knowable and the unknowable. The first, he held, belonged to science; the second must be reserved for religion.

Religion had been so roughly handled by science, it had been driven from pillar to post, until the promise to religionists of a field which was to be left to their undisputed sway was a welcome relief. Their cheerfulness, however, was short-lived, for it turned out

to be based on a misunderstanding of Spencer's idea. To them the "unknowable" was identical with the "unknown."

It will be freely admitted, notwithstanding our tremendous advances in knowledge, that what we know is infinitesimal as compared with what we do not know. It was the realization of this which led to Newton's famous simile of gathering a few pebbles on the shores of the great ocean of knowledge. If then, according to Spencer, this vast area of the unknown was to be left to the unchallenged possession of religion while science must needs be content with the relatively small tract of the known, religion might congratulate itself on the division.

The error lay in the very material difference between "the unknown" and Mr. Spencer's "unknowable." It is quite perceivable, for example, that the population of a town may be unknown, and yet be "knowable" by means of an effective census. A thousand illustrations might be given to show that vast domains of "the unknown" belong to science because they are "knowable." While science does not occupy these domains now, they will surely be the subjects of its future conquests.

It has been the efforts of religion in the past to prevent science from conquering parts of the unknown and adding them to the known that has resulted in what White calls "The Warfare Between Science and Theology," and which Draper describes as "The Conflict Between Science and Religion." It might be remarked in passing that the recent description of so profound a scholar and historian as Dr. Draper as

"a chatterer" by a prominent Catholic has done nothing to inspire public confidence in some of Dr. Draper's critics. Draper's monumental labors can hardly be swept aside by a silly remark.

It might be argued that the religious apologists did not attempt to hold for themselves certain territory as belonging to "the unknown," inasmuch as they claim to have a knowledge of it even to minute details. It cannot be admited, however, that the origin of the human race belonged to the known, in the middle ages, on the strength of the Babylonian legend of the Garden of Eden. If, therefore, the religious world persists in refusing to be limited to Spencer's "unknowable," and in clinging to the knowable unknown, there can be no cessation of "The Conflict Between Science and Religion" until science has added victory to victory and religion, reaping defeat upon defeat, is finally driven from the field.

Spencer's two great categories really mean that the claim of religion is limited to such of the unknown as cannot be known—the unknowable, while to science belongs all the known and all of the unknown which is knowable. This division of the universe is presented with a certain under-current of grim irony as a "reconciliation" between science and religion. It is really a polite way of saying that science means knowledge, while religion is a synonym for ignorance. It is cleverly compared by Ward to the man who offered to divide the house with his wife—taking the inside for himself and giving the outside to her.

One of the difficulties which sociologists had to

overcome was due to the notions which almost all historians entertained as to what constituted history. In order to understand the societies of the present it was essential to know the societies of the past from which they came. This led directly to a searching of the pages of history. The search was fraught with disappointment. The various histories teemed with matters of small importance, while things of vast importance were hardly mentioned or completely ignored.

Out of all proportion to their real importance was the space given to kings and courts, with their petty intrigues and incessant scandals. Their pages reeked of the carnage of bloody and useless wars of succession. Armies camped on every page and battles were fought in every paragraph. Almost every sentence was stained with the blood of a soldier or the *amour* of a king. Back and forth the chapters swung like a pendulum—from court to camp and from camp to court. This type of history, now happily obsolete, or nearly so, has been well styled "drum and trumpet history." Among the pioneers who wrought the change Herbert Spencer holds a foremost place. We will now quote a paragraph from Spencer which in Professor Small's opinion "marks an era in social consciousness."

"That which constitutes History, properly so called, is in great part omitted from works on this subject. Only of late years have historians commenced giving us, in any considerable quantity, the truly valuable information. As in past ages the king was everything and the people nothing, so in past histories, the doings of the king fill the entire picture, to which the national life

forms but an obscure background. While only now, when the welfare of nations rather than of rulers is becoming the dominant idea, are historians beginning to ocupy themselves with the phenomena of social progress. The thing it really concerns us to know is the Natural History of society. We want all facts which help us to understand how a nation has grown and organized itself. Among these, let us of course have an account of its government; with as little as may be of gossip about the men who officered it, and as much as possible about the structure, principles, methods, prejudices, corruptions, etc., which it exhibited; and let this account include not only the nature and actions of the central government, but also those of local governments, down to their minutest ramifications. Let us of course have a parallel description of the ecclesiastical government—its organization, its conduct, its power, its relations to the state; and, accompanying this, the ceremonial, creed, and religious ideas—not only those nominally believed, but those really believed and acted upon. Let us at the same time be informed of the control exercised by class over class, as displayed in social observances—in titles, salutations, and forms of address. Let us know, too, what were all the customs which regulated the popular life out-of-doors and indoors, including those concerning the relations of the sexes, and the relations of parents to children. The superstitions, also, from the more important myths down to the charms in common use, should be indicated. Next should come a delineation of the industrial system; showing to what extent the division of labor was carried; what was the connection between employers and employed; what were the agencies for distributing commodities; what were the means of communication; what was the circulating medium. Accompanying all which, should be given an account of the industrial arts technically considered; stating the processes in use, and the quality of the products. Further, the intellectual condition of the nation

in its various grades should be depicted; not only with respect to the kind and amount of education, but with respect to the progress made in science, and the prevailing manner of thinking. The degree of æsthetic culture, as displayed in architecture, sculpture, painting, dress, music, poetry, and fiction, should be described. Nor should there be omitted a sketch of the daily lives of the people—their food, their homes, and their amusements. And, lastly, to connect the whole, should be exhibited the morals, theoretical and practical, of all classes, as indicated in their laws, habits, proverbs, deeds. These facts, given with as much brevity as consists with clearness and accuracy, should be so grouped and arranged that they may be comprehended in their ensemble, and contemplated as mutually dependent parts of one great whole. The aim should be so to present them that men may readily trace the consensus subsisting among them, with the view of learning what social phenomena coexist with what others. And then the corresponding delineations of succeeding ages should be so managed, as to show how each belief, institution, custom and arrangement was modified, and how the consensus of preceding structures and functions was developed into the consensus of succeeding ones. Such alone is the kind of information, respecting past times, which can be of service to the citizen for the regulation of his conduct. The only History that is of practical value is what may be called Descriptive Sociology. And the highest office which the historian can discharge is that of so narrating the lives of nations as to furnish materials for a Comparative Sociology, and for the subsequent determination of the ultimate laws to which social phenomena conform."

The above passage is of especial value for two reasons. First, it marks a distinct advance in historical theory. Second, it indicates Spencer's place in the history of Sociology.

The one adjective which better than any other describes Spencer's philosophy as a whole, is "evolutionary."

Spencer was pre-eminently the "Evolutionary Philosopher." In this respect his "Principles of Biology" is unsurpassed. This cannot be said, however, of his "Principles of Sociology." There are two methods of regarding the phenomena of any science—the static and the dynamic. A crude illustration of the difference between the two is the difference between a photograph and a moving picture. The static method views things at rest, the dynamic method considers them in motion. In sociology the statist is mainly occupied with social structure; the dynamist gives his chief attention to the social process.

In Spencer's concept of real history, given above, the catalogue of things is more conspicuous than the idea of the process of things and the operation of social forces, which mark the latest and highest development of historical theory.

The ultimate test of the relative values of the two is to be found in the nature of the universe itself. By this time we know that the universe, including its contents, is not static but dynamic. In the language of the ancient Greek philosopher: "Nothing is, everything is becoming." This is why the universe is comprehensible to the evolutionist alone. The difference between the descriptive, static, structural sociology of Spencer and the dynamic sociology of the later sociologists, such as Ratzenhofer, Ward and Small, is, to borrow an excellent simile from Small, the

difference between a department store and an economic system. It is the difference between an exhibit of a collection of concrete articles and a body of inter-relating social forces.

In biology Spencer's method was dynamic; in sociology he was static. In biology he dealt mainly with process; in sociology he dealt chiefly with structure. This does not mean that either method is absent in either case. The structural concept is present in his biology, and the dynamic method is present in his sociology. This was unavoidable in the nature of the case. Structure implies function and process; function and process necessarily imply and involve the idea of structure. The point is that, while in his biology the structural concept is subordinated to the dynamic concept, as it should be, in his sociology the structural concept is predominant. This is a curious confirmation of the notion of Comte—that each science must pass through successive stages. Here we see in the mind of Spencer two sciences in different stages of their development.

The student who wishes to thoroughly grasp Spencer's place in the science of sociology would do well to read closely the earlier chapters of Professor Small's "General Sociology." A careful study of Small's keen and penetrating analysis and criticism of Spencer's method (yet friendly withal), will go far to enable the student to understand more recent developments in sociological theory. As a preliminary to such a study we will quote the following passages:

"The forms of expression that Spencer uses indicate that, when he planned his sociological studies, the proper

material of history—or, as he would phrase it, "descriptive sociology"—seemed to him to be *a species of details to be ranged side by side or in series in a regularly classified exhibit.* He spoke of connections between them, and of laws governing them; yet he had not adjusted his views of society to the most significent elements in his own philosophy. Social facts were to him as the plants which they classified were to the herbarium-making botanists of his generation. To him the morphological features of social facts, their arrangement into orders and genera and species, their side-by-sideness, rather than their interworkings, seemed decisive. Of course, certain perceptions of interrelations between the groups of social facts are in evidence in everything that he wrote. These perceptions, however, played at first a quite subordinate role in his program as a collector and classifier of social material. Indeed, the place assigned in this syllabus to Spencer's work as a sociologist is determined by the judgment that he never entirely outgrew the habit of treating social facts in statical categories imposed by the mind, instead of pressing on to view them in the dynamic relations in which they actually occur. This judgment was reached after study of Spencer's system during a quarter-century."

Again he says:

"His method was to compare exhibits that societies display; not to detect the process through which they develop. It is a method which might permit a botanist to compare the parts of plants without thinking to enquire about their vital connection with the soil. It is a method which would permit the zoologist to be content with descriptions of species, without bothering himself about the origin of species. It is a method essentially descriptive, rather than explanatory."

Speaking in the name of present-day sociology, Professor Small says:

"The problem that presents itself to sociologists today cannot be expressed in terms that sufficed a generation ago. Our present demand is for a way of explaining what is taking place among people, with literal values for the different terms which we find concerned in human experience. We want an explanation, not of men's crystalline formations, not of their machineries, not of their institutional remains. We want an account of the intimate process of their lives, in terms that will assign their actual meaning and value to the chief and subordinate factors concerned in the process."

Lest all this should lead the student to an underestimate of Spencer, we give the following appreciation by Small:

"Yet for a quarter-century the Spencerian program of sociology has probably appealed to more people than any other. As we have intimated above, this is probably not altogether an accident. On the contrary, we may say not only that the Spencerian sociology has done good service as a medium between two historical stages in the development of the science, but that the method which it employs will prove to be a necessary medium between stages of development in the power of generalization in the individual mind. It is certain that we cannot think society as it is, without using structural forms as one factor in the composite picture. It may be that there are periods in our mental history when the best thinking which we can do about society will attach excessive importance to these structural conceptions. At all events, some use of the Spencerian version of society is unavoidable at present. We treat it, therefore, not as a passing phase of social theory, but as a partial view which must be assimilated in our final rendering of the social process."

CHAPTER VII

HERBERT SPENCER—DATA OF SOCIOLOGY.

Of the ten volumes of Mr. Spencer's "Synthetic Philosophy," three are devoted to the principles of sociology. This is the greatest number of volumes devoted to any one science. Mr. Spencer's attitude, criticised in the preceding chapter, of regarding sociology as a collection of sociological exhibits; a sort of inventory of society's assets, determines the character of the second and third of these volumes.

Volume II is devoted to ceremonial institutions and political institutions; Volume III has for its contents the treatment of ecclesiastical institutions; professional institutions; industrial institutions. The descriptive method reaches back into the latter part of Volume I, which treats of domestic institutions. The most interesting and important part of the entire three volumes is the divisions in the first volume which are devoted respectively to "The Data of Sociology" and "The Inductions of Sociology." All readers of Mr. Spencer who open the first volume for the first time, with no previous warning, and begin to read the first division—"The Data of Sociology"—are considerably surprised and not a little disappointed. It is by no means what the title would lead one to expect. What the reader does naturally expect is a treatment of the phenomena of modern societies and modern civilization. What Mr. Spencer gives, however, is a history of the genesis of religion. The bulk of this division says nothing of

modern societies, not even anything of ancient societies; it goes back of all historical documents to a consideration of the ideas of primitive man. This is an echo of the method of those French philosophers of the eighteenth century who were constantly harking back to the state of nature and who illustrated their discussion of the problems of our own time by reverting to the notions of primitive ancestors.

This method has survived in Mr. Spencer, and the advocates of the single tax, who delight in illustrating their theories about the land by introducing the naked savage who catches fish by plunging his bare hand into the stream.

Disappointing as the first volume is in this respect, it is nevertheless a very brilliant achievement and a work of permanent value. Here, for the first time, we have a real history of the origin and development of religion; a history which traces religious phenomena back to its source in the character of the universe and the laws of thought. It entitles Mr. Spencer to be ranked with those great specialists in this field, Sir John Lubbock and Edward Tylor.

Mr. Spencer proceeds upon the assumption, for which there is much to be said, that sociological phenomena should first be studied in its earliest forms. According to Mr. Spencer, institutions are the result of ideas, and it is therefore necessary to understand primitive ideas.

As all primitive man's ideas are religious, there is no difficulty in understanding how Mr. Spencer's analysis of primitive ideas led him to the production of a treatise on religion.

Mr. Spencer's conclusions as to the origin of religion are of course in general agreement with those of Lubbock, Tylor, Grant Allen, and all the scientific men who have thoroughly probed the subject. Probably the best definition of religion is that of Mr. Tylor, who holds that the one thing that is indispensable to the conception of religion is "the belief in spiritual beings." The problem of explaining religion therefore becomes a question of why men believed in spiritual beings. This question, Mr. Spencer undertakes to answer. According to Mr. Spencer primitive man came to believe that he was the possessor of a spirit which had the power to separate itself from the body because he was incapable of understanding such natural phenomena about him as appeared to prove the existence of spirits.

One of these phenomena is that presented by shadows. Mr. Spencer says:

"The primitive man, left to himself, necessarily concludes a shadow to be an actual existence, which belongs to the person casting it. He simply accepts the facts. Whenever the sun or moon is visible, he sees this attendant thing which rudely resembles him in shape, which moves when he moves, which now goes before him, now keeps by his side, now follows him, which lengthens and shortens as the ground inclines this way or that, and which distorts itself in strange ways as he passes by irregular surfaces. True, he cannot see it in cloudy weather; but, in the absence of a physical interpretation, this simply proves that his attendant comes out only on bright days and bright nights."

Again, the savage was deceived by echoes:

"No physical explanation of an echo can be framed

by the uncivilized man. What does he know about the reflection of sound waves? What, indeed, is known about the reflection of sound waves by the mass of our own people? Were it not that the spread of knowledge has modified the mode of thought throughout all classes, producing everywhere a readiness to accept what we call natural interpretations, and to assume that there are natural interpretations to occurrences not comprehended; there would even now be an explanation of echoes as caused by unseen beings."

Probably the chief source of our primitive beliefs in spiritual existences is to be found in the inability of the savage to understand his dreams. Under this head Mr. Spencer accumulated a fund of information, of which the following is typical:

"Schoolcraft tells us that the North American Indians in general, think 'there are duplicate souls, one which remains with the body, while the other is free to depart on excursions during sleep,' and, according to Crantz, the Greenlanders hold 'that the soul can forsake the body during the interval of sleep.' The theory in New Zealand is 'that during sleep the mind left the body, and that dreams are the objects seen during its wanderings;' and in Fiji 'it is believed that the spirit of a man who still lives will leave the body to trouble other people when asleep.' Similarly in Borneo. It is the conviction of the Dyaks that the soul during sleep goes on expeditions of its own, and 'sees, hears and talks.' Among Hill-tribes of India, such as the Karens, the same doctrine is held, their statement being that 'in sleep it (the La, spirit or ghost), wanders away to the ends of the earth, and our dreams are what the La sees and experiences in his perambulations."

There is no lack, of course, of superficial persons of

the orthodox type who never have given so much as ten minutes to the investigation of these questions, but who are willing to sweep aside with a jibe the monumental labors of anthropologists who have reached practically unanimous conclusions about the origin of religions. It is ridiculous and absurd, say these shallow pated gentlemen, to say that the savage knew so little and was deceived so easily. To this objection, Mr. Spencer had the following reply:

"That the primitive man's conception of dreaming is natural, will now be obvious. As said at the outset, his notions may seem strange because, in thinking about them, we carry with us the theory of Mind which civilization has slowly established. Mind, however, as we conceive it, is unknown to the savage; being neither disclosed by the senses, nor directly revealed as an internal entity."

Belief in the existence of gods is only one special form of belief in the existence of spirits, inasmuch as all gods are spirits. As to the origin of gods, Mr. Spencer propounds the theory which is steadily coming to be generally accepted as the scientific explanation. This theory is that the worship of the gods was in reality in the beginning the worship of the mighty dead. One of the things leading to this result was the inability of primitive men to distinguish between sleep and death. To vast numbers of them death was simply an unusually long sleep, and it was expected that at any time the corpse might be come reanimated by the return of the spirit which had probably undertaken a long journey. From the mass of evidence accumulated on this head by Mr. Spencer, we select the following:

"That this confusion, naturally to be inferred, actually exists, we have proof. Arbousset and Daumas quote the proverb of the Bushmen—'Death is only a sleep.' Concerning the Tasmanians, Bonwick writes: 'When one was asked the reason of the spear being stuck in the tomb, he replied, quietly, 'To fight with when he sleep.' Even so superior a race as the Dyaks have great difficulty in distinguishing sleep from death."

Mr. Spencer proceeds to relate how various tribes attempted by a variety of methods, including whipping, to cause the dead to wake from their sleep. Mr. Spencer believes, as the result of his researches, that the custom of setting food before the corpses, or bringing it to the bodies, was due to the belief that death was a long suspended animation. As to how long this suspension might continue, primitive man had no idea. He, therefore, took the safe course of continually replenishing the supplies of food. "Resuscitation," says Mr. Spencer, "as originally conceived, could not take place unless there remained a body to be resuscitated. Expectation of a revival is often accompanied by recognition of the need of preserving the corpse from injury." For this reason, the Abyssinians seldom buried their criminals, but left the bodies in the fields, probably believing that when the bodies were devoured by beasts of prey, it would be impossible for the criminals ever to repeat their crimes. The Egyptian knew no more terrible punishment than the destruction of his corpse. The Demaras hold that if dead men are thrown away and the wolves eat them, they will never again bother anybody. This led to the most ingenious contrivances for the concealment

of corpses from destruction by their enemies. Tahitians would deposit prized bodies on the tops of the most inaccessible mountains. A Bechuana is buried in his cattle pen and all the cattle are driven for an hour or two around and over the grave, to destroy all traces of its location. We are told that when Alaric was buried, the river was diverted, and the body buried in the river bed, after which the stream was allowed to return to its natural course.

To those who wish to know the mountains of evidence that have been piled up on this and kindred subjects, all going to show the real origin of religious beliefs still current in our day, we commend the reading of the first part of Spencer's first volume of "Principles of Sociology," Edward Tylor's "Primitive Culture," and Grant Allen's "Evolution of the Idea of God." Other phenomena which led to spiritual notions, not mentioned so far, are reflections in pools, insomnia, swoons, catelepsy, etc., all of which were explained by primitive men by the assumption of belief in spirits. If it is argued that this does not explain why religious ideas have persisted so far into modern times, it might well be answered that the human race lived in this condition of ignorance as to natural causes of natural phenomena for a vast period of time, while, comparatively speaking, science and its explanations are things of yesterday.

CHAPTER VIII

HERBERT SPENCER—ANALOGICAL SOCIOLOGY

As we have already seen, Mr. Spencer earned his place among the very foremost of the world's philosophers by a number of achievements any one of which would have secured his fame.

He settled the territorial dispute between science and religion, and if the struggle between them still continues it is only because his award has not been universally accepted. This award, it is practically certain, will ultimately prevail, not, of course, because he made it, but because the facts of the case render it inevitable.

Another lasting triumph, already referred to, is his welding together in a grand unity all the phenomena of the universe. This makes him a monist, and monism is the highest expression of philosophy, as monotheism is the highest reach of religion. Spencer finds the basis of his monism in the supremacy of force and while this may be regarded as a questionable position, it is a distinct advance on Comte's denial of the existence of force as a necessary relation of nature. It seems to me however that force is not the proper occupant of the throne of the universe but that matter is the true sovereign. In the controversy now proceeding, in my opinion, the final victory will fall, not to the dynamist upholders of force, but to the scientific materialist monists of the type of Ernest Haeckel and Lester F. Ward.

Mr. Spencer's two volumes, "The Principles of Biology," are a landmark of that science, his "Principles of

Psychology" are a monument that will never crumble, though it will undoubtedly be surpassed as the science advances.

We now come to Spencer's most valuable service to the science of sociology. We have already noted several of his contributions in this field—his complete overthrow of the great man theory, and his origin and genesis of religion as revealed by the study of the ideas of primitive man.

His crowning contribution to sociology however lies in his analysis of society, in which analysis he contends that society is an organism.

This theory of Spencer's deserves the closest attention of the student of sociology. Whatever may be its ultimate value there is no doubting its merit and its desirability at the time it was written. It supplied sociology's most urgent need. In harmony with Comte's theory of the progress of the sciences, biology had already reached the positive or scientific stage, attained still earlier by the inorganic sciences. The emancipation of sociology from the trammels of theology and metaphysics still lay in the future. The one thing which freed the organic sciences and confirmed forever the emancipation of the inorganic sciences, was the discovery and application of the theory of evolution.

The clearness of Mr. Spencer's thinking shines forth in his naming of things. The inanimate is, of course, the inorganic; the living, is the organic, while social life is super-organic. Inasmuch, therefore, as inorganic evolution had banished theology and metaphysics forever from the field of the inorganic, and organic evolution

had done the same for the organic sciences, the science of society needed only for its release the establishment of super-organic evolution. And this is precisely what Mr. Spencer did with his theory of: "The Social Organism."

What is meant by super-organic evolution, Mr. Spencer makes quite clear in the opening pages of the first volume of "Principles of Sociology":

"Of the three broadly-distinguished kinds of Evolution outlined in *First Principles,* we come now to the third. The first kind, Inorganic Evolution, which, had it been dealt with, would have occupied two volumes, one dealing with Astrogeny and the other with Geogeny, was passed over because it seemed undesirable to postpone the more important applications of the doctrine for the purpose of elaborating those less important applications which logically precede them. The four volumes succeeding *First Principles,* have dealt with Organic Evolution: two of them with those physical phenomena presented by living aggregates, vegetal and animal, of all classes; and the other two with those more special phenomena distinguished as psychical, which the most evolved organic aggregates display. We now enter on the remaining division—Super-organic Evolution."

Astrogeny and Geogeny in the above paragraph are, of course, the equivalents of Astronomy and Geology. Mr. Spencer proceeds to show what super-organic evolution is by showing what it is not:

"While we are occupied with the facts displayed by an individual organism during its growth, maturity and decay, we are studying Organic Evolution. If we take into account, as we must, the actions and reactions going on between this organism and organisms

of other kinds which its life puts it in relations with, we still do not go beyond the limits of Organic Evolution. Nor need we consider that we exceed these limits on passing to the phenomena that accompany the rearing of offspring; though here, we see the germ of a new order of phenomena. While recognizing the fact that parental co-operation foreshadows processes of a class beyond the simply organic; and while recognizing the fact that some of the products of parental co-operation, such as nests, foreshadow products of the super-organic class; we may fitly regard Super-organic Evolution as commencing only when there arises something more than the combined efforts of parents."

Mr. Spencer's something more is those various acts generally described as social activities, and the line between the organic and the super-organic is drawn between the family and society.

He illustrates his theory by citing various insect societies—bees, wasps, ants—and certain birds and gregarious animals.

In dealing with these sub-human social groups, it is well worth noting that Mr. Spencer annihilates the argument against socialism employed by Haeckel at the Munich Congress of Naturalists in 1877. The great German pathologist, Virchow, a bitter opponent of the entire evolution theory, sought to alarm the Darwinians with the taunt: "Darwinism leads directly to socialism." Haeckel, as the recognized chief of the Darwinians present, delivered a reply of which the following is a part:

"As a matter of fact, there is no scientific doctrine which proclaims more openly than the theory of descent, that the equality of individuals, toward which Socialism tends, is an impossibility, that this chimeri-

cal equality is in absolute contradiction with the necessary and, in fact, universal inequality of individuals.

"Socialism demands for all citizens equal rights, equal duties, equal possessions and equal enjoyments; the theory of descent establishes, on the contrary, that the realization of these hopes is purely and simply impossible; that in human societies, as in animal societies, neither the rights, nor the duties, nor the possessions, nor the enjoyments of all the members of a society are or ever can be equal."

Haeckel's introduction of animal societies in the above passage as an evidence of the impossibility of abolishing class divisions in human society is almost if not altogether unpardonable in a skilled naturalist. The implied parallel between animal societies and human society exists only in Haeckel's extremely careless and groundless assumption.

When Haeckel here says animal, he of course uses the word in its widest sense as equivalent to zoological, and he immediately conjures up in the minds of his hearers pictures of bees and ants who furnish the most notorious instances of sub-human social organization and practically the only examples of anything that can be compared to human class divisions.

We shall now see how Spencer completely overthrows Haeckel:

"Though social insects exhibit a kind of evolution much higher than the merely organic—though the aggregates they form simulate social aggregates in sundry ways; yet they are not true social aggregates. For each of them is in reality a large family. It is not a union among like individuals independent of one another in parentage, and approximately equal in the capacities; but it is a union among the offspring of

one mother, carried on, in some cases for a single generation, and in some cases for more; and from this community of parentage *arises the possibility of classes having unlike structures and consequent unlike functions.* Instead of being allied to the specialization which arises in a society, properly so called, the specialization which arises in one of these large and complicated insect-families, is allied to that which arises between the sexes."

The italics are Mr. Spencer's. The "like structures" of men and women subject to social inequality and the "unlike structures" of bees and ants who are divided into classes by divisions that are not "social" in any sense, but purely biological, are altogether fatal to Haeckel's argument. For a full reply to Haeckel I must now refer the reader to the seventh chapter of my "Evolution, Social and Organic," from which I quote the following:

"'Bee' society may be said to have class divisions, and it must be conceded that these classes cannot be abolished by anything that could, by any stretch of the imagination, be called 'bee socialism.' But the reason for this is not far to seek and, when found, it makes any argument by analogy, against Socialism, impossible. Bee workers are 'physiologically' incapable of discharging any other function in bee society. They are females, incapable of maternity. As a result of this the queen bee is obliged to shoulder the whole burden of the reproduction of the species, and she is specialized in this direction to such an extent, that she could not possibly be a worker. The drone, as the male breeder, is in the same fix, and the popular notion that they are useless loafers, has its origin in the bee custom of applying the boot, or something worse, to all superfluous members of the drone class."

And again:

"Class divisions in bee society are therefore 'biological' and not economic. But Haeckel's comparison ignores this vital distinction. Before this argument can be used against the Socialist advocacy of class abolition, it must be shown that a queen cannot wash clothes with starvation as an alternative, and that a pleb woman could not wear a coronet, should her father invest in a busted duke."

In the last citation from Spencer, he plainly compares the divisions among "social insects to division between the sexes." As well might Haeckel have argued against what he calls "the absurd, equalitarian, utopian notions of the socialists" on the ground that men can never bear children and women cannot grow beards.

We now come to Mr. Spencer's analysis of human society, which he holds, in common with present-day sociologists, is the only real form of society.

Says Spencer:

"We may henceforth restrict ourselves to that form of Super-organic Evolution which so immensely transcends all others in extent, in complication, in importance, as to make them relatively insignificant. I refer to the form of it which human societies exhibit in their growths, structures, functions, products. To the phenomena comprised in these, and grouped under the general title of Sociology, we now pass."

Spencer has two treatments of this subject. One is his essay on "The Social Organism;" the seventh essay in the first volume of his "Essays, Scientific, Political and Speculative." This is best suited for popular read-

ing as the author probably intended. My own analysis of and comments upon this essay will be found in the eighth chapter of "Evolution, Social and Organic," which is devoted entirely to that purpose.

The second treatment of the subject by Spencer occupies the second book of the first volume of his Principles of Sociology, which is entitled, as before mentioned: "The Inductions of Sociology." For an excellent condensation of this the reader is referred to the eighth chapter of Professor Small's "General Sociology." The student, however, will be well advised to read for himself "The Inductions of Sociology."

The title of the opening chapter consists of the question: "What is Society?" Spencer insists that this question must be asked and answered at the outset. Is it a thing—an entity? or, is it like a lecturer's audience which, by dispersing, proves itself not to be a thing but merely "a certain arrangement of persons?" Our author decides that inasmuch as the members of a society do not disperse, but remain in permanent social relations, society is a thing.

Having decided that society is a thing, Spencer continues:

"But now, regarding a society as a thing, what kind of thing must we call it? It seems totally unlike every object with which our senses acquaint us. Any likeness it may possibly have to other objects, cannot be manifest to perception, but can be discerned only by reason. If the constant relations among its parts make it an entity; the question arises whether these constant relations among its parts are akin to the constant relations among the parts of other entities. Between a society and anything else, the only con-

ceivable resemblance must be one due to *parallelism of principle in the arrangement of components.*

"There are two great classes of aggregates with which the social aggregate may be compared—the inorganic and the organic. Are the attributes of a society in any way like those of a not-living body? or are they in any way like those of a living body? or are they unlike those of both?

The first of these questions needs only to be asked to be answered in the negative. A whole of which the parts are alive, cannot, in its general characters, be like lifeless wholes. The second question, not to be thus promptly answered, is to be answered in the affirmative. The reasons for asserting that the permanent relations among the parts of a society, are analogous to the permanent relations among the parts of a living body, we have now to consider."

Spencer is now ready to answer the question in the title of his first chapter,—"What is a Society?"—in the title of his second: "A Society is an Organism." A society is a "social aggregate," as an animal is an "organic aggregate." The question now is, what have these aggregates in common which justifies the analogy?

The first thing they have in common is growth. Growth "is the first trait by which societies ally themselves with the organic world and substantially distinguish themselves from the inorganic world."

"It is also a character of social bodies, as of living bodies, that while they increase in size they also increase in structure." Progress from a low animal to a high one is a multiplication and a differentiation of parts. A low animal is all stomach, all respiratory surface, all limb. Only by the evolutionary multiplication of parts and functions come lungs, legs, teeth, a

separate stomach nourishing all and saving the rest the necessity of performing the stomach function for themselves. The added parts are not like the original ones, but different. They do not do the same things, but different things. Progress is by division of labor; by specialization, each part of the community of parts performing its own task, which is a different task from the others—in scientific terminology, differentiation of parts and functions. Spencer proceeds to show, in language that needs no simplifying, that all this is equally true of society:

"While rudimentary, a society is all warrior, all hunter, all hut-builder, all tool-maker: every part fulfills for itself all needs. Progress to a stage characterized by a permanent army, can go on only as there arise arrangements for supplying that army with food, clothes, and munitions of war by the rest. If here the population occupies itself solely with agriculture and there with mining—if these manufacture goods while those distribute them, it must be on condition that in exchange for a special kind of service rendered by each part to other parts, these other parts severally give due proportions of their services.

"This division of labor, first dwelt on by political economists as a social phenomenon, and thereupon recognized by biologists as a phenomenon of living bodies, which they called the 'physiological division of labor,' is that which in the society, as in the animal, makes it a living whole. Scarcely can I emphasize enough the truth that in respect of this fundamental trait, a social organism and an individual organism are entirely alike. When we see that in a mammal, arresting the lungs quickly brings the heart to a stand; that if the stomach fails absolutely in its office all other parts by-and-by cease to act; that paralysis

of its limbs entails on the body at large death from want of food, or inability to escape; that loss of even such small organs as the eyes, deprives the rest of a service essential to their preservation; we cannot but admit that mutual dependence of parts is an essential characteristic. And when, in a society, we see that the workers in iron stop if the miners do not supply materials; that makers of clothes cannot carry on their business in the absence of those who spin and weave textile fabrics; that the manufacturing community will cease to act unless the food-producing and food-distributing agencies are acting; that the controlling powers, governments, bureau, judicial officers, police, must fail to keep order when the necessaries of life are not supplied to them by the parts kept in order; we are obliged to say that this mutual dependence of parts is similarly rigorous. Unlike as the two kinds of aggregates otherwise are, they are unlike in respect of this fundamental character, and the characters implied by it."

But a society is a mass of individuals who have a good deal of independence and despite their dependence on society as a whole, yet live their individual lives. To those unacquainted with the revelations of biology the analogy here breaks down. But this is by no means the case. In fact, the opposite is the case. Every animal is composed of millions of cells, each cell having its own history and its own individual life. The blood cells, for example, move around freely, selecting their own food. The white corpuscles "may be fed with colored food which will then be seen to have accumulated in the interior," "and in some cases the colorless blood-corpuscles have actually been seen to devour their more diminutive companions, the red ones." Spencer quotes Hux-

ley: "The sponge represents a kind of sub-aqueous city, where the people are arranged about the streets and roads, in such a manner, that each can easily appropriate his food from the water as it passes along." From these and many other facts and illustrations Spencer concludes: "On thus seeing that an ordinary living organism may be regarded as a nation of units which live individually, and have many of them considerable degrees of independence, we shall have the less difficulty in regarding a nation of human beings as an organism."

Another clear parallel is that "the life of the aggregate is far longer than the lives of the units." "The minute living elements composing a developed animal, severally evolve, play their parts, decay, and are replaced, while the animal as a whole continues."

"Thus it is also with a society and its units. Integrity of the whole as of each large division is perennially maintained, notwithstanding the deaths of component citizens. The fabric of living persons which, in a manufacturing town, produces some commodity for national use, remains after a century as large a fabric, though all the masters and workers who a century ago composed it have long since disappeared. Even with minor parts of this industrial structure the like holds. A firm that dates from past generations, still carrying on business in the name of its founder, has had all its members and *employes* changed one by one, perhaps several times over; while the firm has continued to occupy the same place and to maintain like relations with buyers and sellers. Throughout we find this. Governing bodies, general and local, ecclesiastical corporations, armies, institutions of all orders down to guilds, clubs, philanthropic associa-

tions, etc., show us a continuity of life exceeding that of the persons constituting them. Nay, more. As part of the same law, we see that the existence of the society at large exceeds in duration that of some of these compound parts. Private unions, local public bodies, secondary national institutions, towns carrying on special industries, may decay; while the nation, maintaining its integrity, evolves in mass and structure."

It is impossible in a work of this size to follow Spencer through all the details of his analogy between society and a biological organism, and the reader who desires to do so must turn to the pages of the author. The essay on "The Social Organism" contains some remarkably ingenious comparisons. Railways, carrying food to points of consumption, are compared to the blood carrying nutriment to the various parts of the body. Even the double track railroad is paralleled by arteries and veins carrying the blood in opposite directions. Blood, the grand essential of organic life, is compared to money in social life, and the comparison is carried to the point of recognizing a likeness between blood discs and coins. The nerves, carrying their instantaneous messages to the brain, are likened to the telegraph. Even parliaments have their organic counterpart, though it is with evident reluctance that he is obliged to admit that the comparison of the despised legislative bodies must be compared to so important an organ as the brain. Only in government and governmental bodies could he find anything that served as a sort of social sensorium. As Huxley pointed out, this was a sad commentary on Spencer's rabid individualistic attacks on all things legislative.

We will now present Spencer's own summary of the general reasons "for regarding a society as an organism."

"It undergoes continuous growth. As it grows, its parts become unlike: it exhibits increase of structure. The unlike parts simultaneously assume activities of unlike kinds. These activities are not simply different, but their differences are so related as to make one another possible. The reciprocal aid thus given causes mutual dependence of the parts. And the mutually-dependent parts, living by and for one another, form an aggregate constituted on the same general principle as is an individual organism. The analogy of a society to an organism becomes still clearer on learning that every organism of appreciable size is a society; and on further learning that in both, the lives of the units continue for some time if the life of the aggregate is suddenly arrested, while if the aggregate is not destroyed by violence, its life greatly exceeds in duration the lives of its units. Though the two are contrasted as respectively discrete and concrete and though there results a difference in the ends subserved by the organization, there does not result a difference in the laws of the organization: the required mutual influences of the parts, not transmissible in a direct way, being, in a society, transmitted in an indirect way."

Spencer's analogical method has met with much criticism at the hands of his successors. Professor Giddings, in his "Principles of Sociology," while holding that Spencer's analogy is "not fanciful" but "real," contends that it has "limited scientific value." Giddings maintains that while a society has much in common with an organism, it is in reality something more, viz.: an organization.

Probably the best estimate is that of Lester F. Ward, in the first volume of "Dynamic Sociology" (page 209):

"The chief service that has been done in pointing out these analogies so minutely has been that of demonstrating by means of them that society is an evolving aggregate. This was the truth that most needed demonstration, being the one commonly called in question. The denial of this proposition is fatal to all attempts to study sociology as a branch of science. No one doubts now that organisms may be legitimately so studied. When, therefore, it is shown that nearly all the phenomena which a living creature presents are directly comparable to exactly corresponding phenomena in society, the strongest proof that can be presented of the scientific character of social processes has been furnished. And when it is shown that society has passed through all the stages of evolution that living creatures have, and has been subject to all the laws, principles, and processes of evolution in general, the case seems to be pretty thoroughly made out. From a confused, chaotic, homogeneous state, still represented by many low tribes, there have gone on both differentiation and integration. From the several degrees of social differentiation shown by different races, a classification of societies is made possible."

CHAPTER IX

TRANSITION FROM SPENCER TO RATZENHOFER

In philosophy Herbert Spencer was a great master; in biology, a great organizer; in psychology, a great founder and in sociology, a great pioneer. It is all very well to say that Spencer's sociology is out of date. That is only true in a little larger degree than would be the assertion that the astronomy of Copernicus, or the physics of Galileo, are out of date. Spencer's sociology is one of the rungs of the ladder by which his successors have been able to climb. As no science can be completely mastered apart from its history, the student of sociology must thoroughly study the works of its two greatest fore-runners—Comte and Spencer.

Nothing more than a hint has been given as yet of Spencer's individualism and his adherence to the vicious and happily discarded doctrine of *laissez faire*—(let things go).

This policy of no policy is the most unfortunate element in Spencer's thinking and will militate against his fame all the more, as men realize its utter futility and move, as they are ever moving and have always really moved, toward the doctrine of *faire marcher*—(make things go). I have devoted a chapter to this aspect of Spencer's teaching in "Evolution, Social and Organic," and one to Max Stirner's allied theories, in "Ten Blind Leaders of the Blind." We shall pass it here and treat it later when we deal with the purpose of sociology.

With the passage from Spencer to Ratzenhofer the

whole concept of Sociology changes. For a clear exposition of the nature of the change, the student is indebted to Professor Small's invaluable book, before mentioned and quoted, "General Sociology." It is indeed this transition which constitutes Small's chief theme, and its able and brilliant treatment gives Small's book a permanent place in the great books of the science. "Our thesis," says Small, in his preface, "is that *the central line in the path of methodological progress, from Spencer to Ratzenhofer, is marked by gradual shifting of effort from analogical representation of social structures to real analysis of social processes.*"

The italics are Small's. Small approaches this change through the avenue of definitions. From a wide variety of definitions by a host of sociological writers, he selects the definition by Ward as "the most compact statement which can be made of the whole subject-matter which sociology finds it necessary to treat." That definition is: "Sociology is the science of society, or the science of social phenomena."

Small insists that a variety of definitions do not imply any essential antagonism between the sociologists who give them, but rather are due to each writer focusing his attention on some different aspect of the science. It will have been observed by this time that in this exposition of modern sociology the method is, as far as possible, to let the great thinkers speak for themselves. Small explains his idea in the following interesting and illuminating passage:

"In presence of the same body of facts about human experience, intellectual interest in organizing and interpreting the facts concentrates in several distinct ways.

For instance, one variety of thinkers look out over human associations, and they are moved to ask: 'How did men come to associate as they do now?' This is the typical question of those whose primary curiosity is about the genetic aspect of human experience. Thinkers of another variety survey the same facts, and they ask: 'How do men manage to preserve the *statu quo?*' This question voices the peculiar interest of the men who care more for insight into the present social situation, for analysis of present social arrangements and the way they work, than for knowledge of how they came into existence. A third variety of thinkers are relatively indifferent to both these questions, and they ask rather: 'What are the visible indications about the ways in which men will associate in the future?' This is the question that rallies the men who are trying to make the things which are seen disclose those that are unseen. It is the question of the seer, the idealist, the constructive philosopher. To him past and present are nothing except as they contain and reveal the future. Still another variety of men take for granted all the answers to these questions that seem to them worth considering, and their question is: 'What is the thing to do here and now, in order to make the better future that is to be?' This is the query of the men who want to be more than mere scholars. They want to accomplish something. They want to organize rational movements for making life yield increasing proportions of its possibilities."

After discussing at length four typical definitions, Small arrives at a fifth—"a still more accurate description of sociology . . . more accurate and inclusive than any other single formula."

This definition has the merit of expressing the dominant note in Ratzenhofer's concept and with it Small closes his discussion of definitions—"*Sociology is the science of the social process.*"

Between Spencer and Ratzenhofer, Small places Schäffle. Schäffle is given one chapter in Small's book, which is probably more than he deserves. About all that Small claims for him is that he places rather less emphasis on structure and a little more on function, than Spencer, thus breaking the gap between Spencer and Ratzenhofer. This paragraph will be the only reference to Schäffle in this book. I have analyzed the deluge of rubbish which floods the pages of his "Impossibility of Social Democracy" and those who care to know my opinions of Schäffle are referred to my chapter on that book in "Ten Blind Leaders of the Blind."

We cannot, of course, give Ratzenhofer's system in detail. His own epitome of it is given by Small as the thirteenth chapter of "General Sociology." We shall note certain important elements.

Ratzenhofer recognizes that all social organizations have at their base two great biological necessities. The first, is the instinct of self-preservation which produces rivalry for food. The second, is the sexual instinct which perpetuates the species and results in the blood-bond. This blood-bond is the origin of all social interrelation and, therefore, all primitive social structures are based on community of origin. The increase in numbers among primitive groups leads some to feel the overcrowding and, wander forth to new lands, or if the stronger wish to remain, war breaks out and the weaker are driven forth. This spreads the human race over the planet, and the action of new physical environments leads to race differentiation. These differentiated races coming into contact leads to flight or battle. The con-

quered are robbed of food supply and abodes. They themselves are at first killed; later the method is to make them prisoners of war. After being subjugated, they are enslaved. Thus rulers and ruled appear, and the rulers, in order to maintain their rule, create the state.

This account of the origin of the state is in essential harmony with the socialist philosophy which declares the state to be a class weapon from the beginning until now.

The rulers, having compelled the ruled to labor for the supplying of the wants of both, now have leisure, and culture arises. Culture promotes commerce, and "commerce tends to spread differentiation without limit over all social structures." "The differentiation and the blending of social structures is the practical content of the social process."

The two contending forces at work in the social process are differentiation, the result of the impulse to individualism, and socialization, or "the impulse to form communities." "Differentiation has its boundaries in the number of individuals, that is to say, differentiation can go on up to the *atomization of society,* because each individual may regard *his own* interest as the content of a social structure. Socialization is bounded only by humanity, that is to say, 'humanity' may become a social structure, if throughout that most inclusive range a unifying interest comes to be felt as a need."

Ratzenhofer undoubtedly penetrates to the real nature of social order when he describes it as an "organizing of the struggle for existence." This reason for the existence of societies is purely Darwinian. Those men who formed themselves into societies had an advantage

in the struggle for existence over others who remained isolated or in small groups. We now know that the history of the human race is the history of a long struggle. The struggle has been against other species of living creatures and the difficult living conditions presented by the universe itself. In this struggle against the universe, man has employed a variety of weapons, but none that have proved nearly so successful as social organization. For this reason, Lester F. Ward looks upon society as a human invention, somewhat similar to the invention of agriculture or the art of making a fire. The idea that the members of primitive societies consciously perceived the advantage of social organization is probably somewhat overdrawn. Darwin has shown that this conscious perception of advantage is not necessary to adoption. Birds, for example, build their nests and are great gainers thereby, but it is hardly likely that they themselves are conscious of the process and its resulting advantages. The reason all birds build nests is that such birds as once might have existed and did not build nests were weeded out in the struggle for existence, because they were at a disadvantage as against the nest builders.

The early struggles of men were not only against other creatures and against the universe, but also against other men. Those men who, beginning with the blood-bond, expanded their social organization thereby reaped advantages which enabled them to survive, while others, failing to follow their example or not following it effectively, perished or were exterminated. The Gypsies of Europe and the Indians of North America are disappearing because they cannot adapt themselves to, or

hold their own with, modern social organization. It is highly probable that many primitive races of men became extinct because—for various reasons—they did not form societies.

We now come to another luminous concept of Ratzenhofer's. This consists of what Ratzenhofer regarded as the political principles. These are two in number and are in contrast with each other; one is called the *stereotyping* principle, the other, the *innovating* principle. The first tends to preserve the *statu quo;* the second, to introduce changes. Professor Small manifests an equal admiration for both principles and holds that "In a given society, the stereotyping factor might turn out to represent the program that in the end would be the best for society." This is all very well, of course, but it is none the less easy to see that there could be no social progress apart from the innovating principle. The chief argument against innovation—in fact the only argument—is that changes might be made prematurely. For example, the exploited workers might try to seize and hold the tools of production before they had taken the precaution of capturing, or at least hopelessly corrupting, the armed forces of the State. Again, the same workers might seek to abolish the capitalist class before it has quite finished its historic task.

Another idea of Ratzenhofer's that well deserves to be noticed here is expressed as follows: "The social process is a perpetual readjustment of equilibrium between forces that tend backward toward more struggle and those that tend forward toward more socialization."

Thus in Ratzenhofer's estimation the struggle between man and man is not the most desirable condition, and the abolishing of all struggle in favor of fraternal co-operation is the chief element in social advance. This is a sad comment on those leading American politicians who would like to be regarded as statesmen, without ever having deserved the name, who seem to think that the elimination of competition is the chief disaster of modern times. The various plans of men of the Bryan, Cummins, La Follette type for a return to competition is, in the language of Ratzenhofer, "an effort to go backward toward more struggle" while all real statesmen, understanding something of the social process, would seek to go forward toward more co-operation and socialization.

CHAPTER X

THE PLACE OF KARL MARX IN SOCIOLOGY

The reader who has traveled thus far will now realize that the greatest single achievement of the science of sociology is the concept of society, not as a collection of institutions, and sociology as an explanatory catalogue or inventory—after the fashion of Spencer, but as a process of development, and the science of sociology as the analysis and explanation of the process. This concept is identical with the "Pure Sociology" of Lester F. Ward. The only advance, to date, on this concept is the "Applied Sociology" of Ward. And be it clearly understood that the concept of applied sociology does not displace pure sociology in any sense, as for example, the sociology of process does, in a measure, displace the Spencerian sociology of structure.

The reader of Spencer will probably find in his work enough reference to the functions of social structures to raise a doubt as to the justice of speaking of structural sociology as typical of Spencer. For the benefit of such readers, let us once more call attention to the arrangement of his three volumes of "The Principles of Sociology." That the inventory of society's assets in the form of social institutions was Spencer's dominant idea, will then stand clearly forth.

FIRST VOLUME

I. The Data of Sociology.
II. The Inductions of Sociology.
III. Domestic Institutions.

SECOND VOLUME

IV. Ceremonial Institutions.
V. Political Institutions.

THIRD VOLUME

VI. Ecclesiastical Institutions.
VII. Professional Institutions.
VIII. Industrial Institutions.

The above is the complete contents tables of Spencer's three volumes, except that it does not give the subdivisions. Professor Small justly cites Spencer's use of the definite article "The" in "The Data of Sociology" as indicating the limitation of Spencer in assuming, his own hints to the contrary notwithstanding, that all the essentials of social phenomena could be found in the social structures and ideas of primitive men.

The progress of sociology from the limitations of Spencer to its present status, is due to the general consensus of the labors of a number of profound and brilliant thinkers. The histories of sociology, such as have been written, seek to allot to each of these a proper place in accordance with the value of his work. There is one name, however, which should loom large in such records, which is usually passed over entirely or treated only to a passing reference. This is the name of Karl Marx. The two chapters on "The History of Sociology" in Small's "General Sociology" are a case in point. This altogether unjust treatment of the great German-Jew is about what might be expected from the sociologists of the chair. These reasons have no weight with

us, and we shall endeavor to give Marx his place without going to the opposite extreme of an over-emphasizing partisanship.

Rash and ill-judged statements have no proper place in a book of this kind, and I believe I am guiltless under either charge when I assert that Marx has been ignored or jeered at chiefly because of the moral cowardice of the men who have been his detractors. As we shall see in the next chapter, I hold this view in common with a leading university professor of sociology, except that the professor, whom we shall shortly quote at length, would not be so explicit in his choice of terms. All history is evidence that only the most courageous men have dared to fly in the face of conventionality. Most men not only lack the courage to do this but they are too pusillanimous to applaud their superiors who do. Marx not only had the genius of a Galileo or a Bruno, he also had their sublime courage and daring. While he lived late enough to escape the faggot and the stake, he endured long exiles from his country and lived during these periods of exile in the direst poverty. Some day history will do proper justice to his pigmy-minded, hare-hearted maligners, who sneered at a man whose shoes they were unfit to polish, and whose ideas were beyond their intellectual range.

Among the less discreditable reasons for ignoring the work of Marx in the field of sociology, are first, that Marx did not call himself a sociologist, and second, that he is popularly supposed to have worked only in a narrow subdivision of the science.

Small tells of an eminent professor who began a course

of lectures on sociology with the definition: "Sociology is the science that deals with the labor problem." He very justly condemns this definition as comparing with a definition of physics as "the science that deals with water wheels" or of chemistry as "the science that deals with sterilizing milk." Small very properly holds that while each proposition tells the truth, it "tells such a minute fraction of the truth that it is ridiculous." The only comment that suggests itself is that the "fraction" in the first case is not so "tiny" as in the two latter ones.

None of these three definitions are more ridiculous than the assumption (of which Small himself is not guilty) that the sociology of Marx is merely a sociology of the labor problem. It is equally ridiculous to assume such a limitation in Marx on the ground that certain of his conclusions have a great deal to do with the labor problem. If a sociologist is to be judged by his grasp of the social process and its laws, we have no hesitation in saying that as a sociologist, Marx has no superior in the entire range of the science. In one important respect he vastly transcended Spencer. Instead of seeking his "data" among primitive savages, he analyzed the social forms and process of the most highly developed country of his day—England. And this was no accident. Engels explains that Marx selected England because it presented the most complete development of that machine process which is the latest product of social progress.

Speaking for myself, I share Small's admiration of Ratzenhofer; I regard Lester F. Ward as the greatest living sociologist; I consider "The Positive Philosophy"

an epoch-making book, despite its remarkable blunders; I regard Spencer as one of the greatest geniuses of his own or any age, notwithstanding his characterizing of the form of society for which I most fervently hope as "The Coming Slavery;" I think that Small has rendered to sociology service of the highest order; I recognize valuable ideas in the works of Professor Giddings, though I am astounded at his extremely high rating of Christian philanthropy and Christian missionaries as great social factors; I can appreciate Gumplowicz, while rejecting totally his main idea of the uselessness of effort; I read with pleasure the keenly analytical pages of Professor Ross; and this list of brilliant laborers in the sociological field might flow on like a river, but I wish to say plainly that nowhere in the output of sociologists have I found a more keenly penetrating analysis of the social process, or a more philosophical and comprehensive grasp of the immanent laws of that process, than in the luminous and closely reasoned pages of the founder of scientific socialism.

In pursuance of this contention we shall now read two passages from the writings of Marx which are examples of his penetration to the very core of the social process. The first is from the preface of his earliest book "The Critique of Political Economy," and gives the substance of his conception of the social process as it unfolds itself in history:

"The general conclusion at which I arrived and which, once reached, continued to serve as the leading thread in my studies, may be briefly summed up as follows: In the social production which men carry on they enter into definite relations that are indispensable and inde-

pendent of their will; these relations of production correspond to a definite stage of development of their material powers of production. The sum total of these relations of production constitutes the economic structure of society—the real foundation, on which rise legal and political superstructures and to which correspond definite forms of social consciousness. The mode of production in material life determines the general character of the social, political and spiritual processes of life. It is not the consciousness of men that determines their existence, but, on the contrary, their social existence determines their consciousness. At a certain stage of their development, the material forces of production in society come in conflict with the existing relations of production, or—what is but a legal expression for the same thing—with the property relations within which they have been at work before. From forms of development of the forces of production these relations turn into their fetters. Then comes the period of social revolution. With the change of the economic foundation the entire immense superstructure is more or less rapidly transformed. In considering such transformations the distinction should always be made between the material transformation of the economic conditions of production which can be determined with the precision of natural science, and the legal, political, religious, æsthetic or philosophic—in short ideological forms in which men become conscious of this conflict and fight it out. Just as our opinion of an individual is not based on what he thinks of himself, so can we not judge of such a period of transformation by its own consciousness; on the contrary, this consciousness must rather be explained from the contradictions of material life, from the existing conflict between the social forces of production and the relations of production. No social order ever disappears before all the productive forces for which there is room in it, have been developed; and new higher relations of production never appear before the material

conditions of their existence have matured in the womb of the old society. Therefore, mankind always takes up only such problems as it can solve; since, looking at the matter more closely, we will always find that the problem itself arises only when the material conditions necessary for its solution already exist or are at least in the process of formation. In broad outlines we can designate the Asiatic, the ancient, the feudal, and the modern bourgeois methods of production as so many epochs in the progress of the economic formation of society. The bourgeois relations of production are the last antagonistic form of the social process of production —antagonistic not in the sense of individual antagonism, but of one arising from conditions surrounding the life of individuals in society; at the same time the productive forces developing in the womb of bourgeois society create the material conditions for the solution of that antagonism. This social formation constitutes, therefore, the closing chapter of the prehistoric stage of human society."

The second passage is of later date and deals with society as it is and is, like the first, prophetic of a society to come:

"As soon as the laborers are turned into proletarians, their means of production into capital, as soon as the capitalist mode of production stands on its own feet, then the further socialization of labor and the further transformation of the land and other means of production into socially exploited and, therefore, common means of production, as well as the further expropriation of private properties, takes a new form. That which is now to be expropriated is no longer the laborer working for himself, but the capitalist exploiting many laborers. This expropriation is accomplished by the action of the immanent laws of capitalistic production itself, by the

centralization of capital. One capitalist always kills many. Hand in hand with this centralization, or this expropriation of many capitalists by few, develop, on an ever-extending scale, the co-operative form of the labor process, the conscious technical application of science, the methodical cultivation of the soil, the transformation of the instruments of labor into instruments of labor only usable in common, the economizing of all means of production by their use as the means of production of combined, socialized labor, the entanglement of all peoples in the net of the world-market, and with this, the international character of the capitalistic regime. Along with the constantly diminishing number of the magnates of capital, who usurp and monopolize all the advantages of this process of transformation, grows the mass of misery, oppression, slavery, degradation, exploitation; but with this too grows the revolt of the working class, a class always increasing in numbers, and disciplined, united, organized by the very mechanism of the process of capitalist production itself. The monopoly of capital becomes a fetter upon the mode of production, which has sprung up and flourished along with, and under it. Centralization of the means of production and socialization of labor at last reach a point where they become incompatible with their capitalist integument. This integument is burst asunder. The knell of capitalist private property sounds. The expropriators are expropriated."

The current year has given us an example of plain speaking on an hitherto tabooed subject which may well be, in university circles, the beginning of better things. Professor Small's lecture on "Socialism in the Light of Social Science," delivered before the Chicago Woman's Club, and published in the May, 1912, number of The American Journal of Sociology, is so frank and refresh-

ing as to well deserve the widest possible circle of readers. As a contribution in this direction, we shall devote the next chapter to the reproduction of such parts of the lecture as bear most directly on the subject raised in this.

CHAPTER XI

SMALL'S ESTIMATE OF MARX

The introduction to this chapter will be found on the closing page of the preceding one. It is needless to say there is much in the following to which I do not subscribe, but where so many excellent things are said one does not feel disposed to "answer" the rest. We are not quoting the entire lecture but the quotation is continuous; from the point of beginning to its close nothing is omitted. Not the least of its merits is the high source from whence it comes. Professor Small is Dean of the Sociology Department of the University of Chicago and Editor-in-Chief of "The American Journal of Sociology":

"Socialism has been the most wholesome ferment in modern society. If we have no socialism in either of the senses just eliminated, what have we? Well, to begin with, we have merely a greater mass and more specific expressions of something that is as old as the human race. There have always been men who looked upon mooted questions from the standpoint of those who had arrived. There have always been other men who looked upon mooted questions from the standpoint of the larger number made up partly of those who had not arrived, partly of those who were arriving, and, most important of all, partly of those who hoped to arrive. The question of arrival has not necessarily determined choice between these standpoints. Something in occupation or in tone of feeling may have inverted manifest destiny in this regard, but if we boil down the ideas of men the world over and the ages through we find that

there has always been a more or less evident division of men into those who looked upon life with the eyes of those who had reached secure standing ground, and those who regarded things from the situation of those who were struggling for place. The former have always been the minority. Their presumption has always been that things were about as well settled as they could be, and that all good citizens should be content with the established order. The latter have always been the vast majority, and as a rule the social influence of the two strata at a given moment has been, let us say it at a venture, something like the inverse of the cube of their numbers. Roughly speaking, the ability of the majority to voice its feelings has steadily increased throughout historic times. There have always been men who called themselves by some equivalent of the term democrat. They have had in common some variation of the presupposition that the world belongs to the many, not to the few. Beyond that they resembled each other chiefly in bringing each some peculiar charge or charges against the existing order, in pressing the claim that human affairs are not as they should be. So far as I can learn, none of these spokesmen of the majority thought to call themselves socialists until after 1845, when Leroux coined the word. Since 1776, however, the number of these men who thought and spoke for the many has increased. The conclusiveness of the things they had to say in behalf of the many may not have increased in equal proportion. The confidence of the prophets of the many in the force of their message has certainly gained assurance, and the aggregate of these popular utterances has gathered volume. We have had then, since the close of the eighteenth century, a rising tide of popular power and of corresponding popular self-assertion. Everywhere social institutions which have been aristocratically social institutions which have been aristocratically evolved encounter a unique challenge of democratic crit-

icism. The majority is taking a larger hand in its own affairs. To a great extent the participation of the majority is vague, incoherent, jangling, unorganized, but it has on the whole a lift and a thrust which is inevitable and irresistible.

"The most efficient theoretical factor in promoting the flow of this popular tide has been Marxian socialism. When I say that I am disposed to analyze the proposition into the component parts, 90 per cent Karl Marx and 10 per cent his followers.

"Marx was one of the few really great thinkers in the history of social science. His repute thus far has been that of every challenger of tradition. All the conventional, the world over, from the multitude of intellectual nonenties to thinkers whose failure to acknowledge in him more than a peer has seriously impeached their candor, have implicitly conspired to smother his influence by all the means known to obscuration. From outlawry to averted glances, every device of repression and misrepresentation has been employed against him. Up to the present time the appellate court of the world's sober second thought has not given him as fair a hearing as it has granted to Judas Iscariot. The little book entitled *The Economic Interpretation of History,* published by Professor Seligman of Columbia in 1902, remains conspicuous in its loneliness as an exception to the general rule. Men in dignified academic positions still refrain in public from giving Marx his due. He is worthy of the most respectful treatment which thinkers can pay to another thinker whose argument has never been successfully answered. It is a Herculean task to analyze a conventionalized world with unconventional results and to make out such a measure of probability for the results that the exhibit puzzles, if it does not convince, the conventional-minded. Marx certainly did this. No man has done more than he to strengthen the democratic suspicion that the presuppositions of our present social system are superficial and provisional. I do

not think that Marx added to social science a single formula which will be final in the terms in which he expressed it. In spite of that, I confidently predict that in the ultimate judgment of history Marx will have a place in social science analogous with that of Galileo in physical science. He found a world organized, in its practice and its theory, around capital. He declared that the world will remain impossibly arbitrary until its theory and its practice center around labor. This was in substance by no means a novel utterance. Adam Smith had said it, but he was appalled by his own irreverence and promptly retracted it. Marx said it with the force, the detail, and the corroborating evidence of a revelation. He is still a voice in the wilderness, but for one I have no more doubt that he was essentially right, and that conventionality was essentially wrong, than I have that Galileo will hold his place to the end of time as one of the world's great discoverers.

"After what I have said, I shall not be expected to undertake a defense or even an interpretation of specific Marxian doctrines. As I have hinted, the precise content of his theory, or the degree of its approach to correctness, is of less permanent importance than, first, the negative fact that he impeached the entire theoretical basis of our capitalistic system, and second, the positive fact that he designated factors in the capitalistic system which were working badly in practice or were wrongly rated in theory or both. Accordingly he was a constructive agent in the same sense in which the engineers were who bored into the floor of Hell Gate to prepare the way for the dynamite and the dredges. Many leading thinkers, especially in Germany, were already pursuing aims closely related to those of Marx, along lines which might be likened to attempts to develop more skilful pilots. Marx's program was to deepen and widen and straighten the channel.

"In other words, nobody since Martin Luther has done as much as Karl Marx to make the conventional-minded

fear that our theories of life may need a thorough overhauling. The longer that overhauling is postponed the greater will be the repute of Marx after the crisis is passed, and the more fatuous will the interests appear that are meanwhile repressing the inevitable.

"I will speak of five particulars in which Marx challenged prevailing ideas. In the first place he alleged that *the world must set itself right about the economic interpretation of history.* What is this "economic interpretation of history"? The books and essays that have been written to prove that Marx did not say precisely, and that so far as he did say he was not correct, amount to a considerable library. And the writers of conventional books and essays and editorials have jeered and gloated and denounced, as though it were something immensely to Marx's discredit that he did not give society an infallibly complete new analysis of itself, and something immensely to their credit that they were glad of it. Good form in this connection has been very much like meeting the child that rushes into the parlor to report that the house is on fire with directions to retire and rehearse his company manners. Not to break into the controversy as to what Marx did or did not say about the economic interpretation of history, or how much more remains to be said, the gist of the whole matter is the homely fact that if there is anything insecure about a man's chances of getting tomorrow's dinner, or anything unjust about the ways in which he is forced to use the chances, there will be nothing quite right about the rest of his mental or emotional or moral life. Or, to express it in the social instead of the individual form, if there are crudities or injustices in our economic system, to that extent those of us who gain by the anomalies will be getting something for nothing, while those who lose by them will be deprived of a square deal. Marx said in substance that there is not a private business on earth that could exhibit inconsistencies as glaring as the in-

dustrial system of every modern nation presents, without being due for reorganization or the receiver. The only remarkable thing about this proposition it that there are still intelligent human beings of adult age who have not discovered that it is a commonplace.

"Second, Marx called attention to *class conflict,* as a primary factor in human history, and he tried to rouse the classes that have no resource but their labor to open their eyes to their own interests in the situation, to become 'class conscious,' and to pursue their own interests as intelligently as the competing classes pursue theirs. Truly this is a most impertinent and inhuman perversity! What would the world come to if everyone should be as keen as we are for the main chance? What would happen to that smug old fiction of the 'industrial harmonies,' that Magna Charta of vested interest, that notice to the labor class that it must be content with what is left to it after privilege has been supplied? What social order would be left if the man who is down should ever become as class conscious in trying to get up as the classes who have arrived are in clinging to what they have got?

"Accordingly, more crocodile's tears have been shed over Marx's recourse to class conflict than over any other mooted conception in the whole field of social science. The first type of deprecation has already been indicated. It is grieved and indignant denial that such a thing as class conflict exists in the world. We need not stop to parley with this inanity. No one gets through a primer of social science today without learning that class conflict is to the social process what friction is to mechanics. It is one of the elemental reactions between human beings. Its accidents only have changed and are changing. Its essentials are apparently permanent. The original lineup on 'Schedule K' was between farmer Cain and shepherd Abel. There is not a philosopher or artist or poet or scientist who does not get his leverage

on life by struggle with men in his own and other classes who furnish reaction to his action. The fact of class struggle is as axiomatic today as the fact of gravitation.

"But both ingenuous and disingenuous men have decried Marx as a *fomenter* of class struggle, and they have tried to distract attention from irrepressible issues between present classes by exposing the wickedness of stirring up industrial strife. There is truth on this side, too, but modern capitalists and their attorneys have no right to plead it. Who has taught our generation, by word and deed, that competition is war? The human process is at best no Quaker meeting. The struggle of interest with interest, which is merely an alternative way of saying 'human process,' has not yet reached the stage in which turning the other cheek is a frequent occurrence. The only people who are generally understood or respected today are those who think they have rights and accordingly fight for them. The classes that have fought their way into the security of our property system show themselves either hypocritical or stupid when they blame the backward classes for declaring war for the same kind of conquest. No matter how firmly we believe in the ideals and methods of peace, we can have nothing but contempt for the self-righteousness of classes already armed and entrenched when they try to dodge the issue by pointing to the sinfulness of their rivals' call to arms. The conventionalists have no better case against Marx and his followers on this score than Charles I had against John Hampden, or George III against John Adams, or Jefferson Davis against Wendell Phillips.

"Third, Marx put a new emphasis on the rudimentary economic fact of *surplus value*. Again I purposely avoid attempting to give Marx's particular version of the fact. The main thing is that he called for new attention to this vital element in the industrial situation. My own

judgment is that Marx was as one-sided in his ideas about 'surplus value' as capitalistic orthodoxy was. This is merely another way of saying that both were intellectually wrong. In human affairs, however, that party is always morally right which demands further investigation of debatable questions. That party is always morally wrong which demands that debatable questions shall be treated as *res judicata.* According to the traditional economic theory, land, labor, and capital are the factors in production. According to that same theory, the law of supply and demand assigns to each factor its fair share in the product. In fact, when a business is prosperous, these three factors in the enterprise receive each its market rate of compensation, and yet there remains a surplus. What follows? Does the system presume that the three factors concerned in creating this surplus must be recognized in its distribution? By no means. The copartnership of land, labor, and capital was all well enough in production, and in the preliminary distribution of the market rate of rent, wages, and interest. By some right which capitalism assumes, but does not account for, the partnership ceases and determines in the presence of the surplus. An unprejudiced observer would suppose that the three parties necessary to the production of that surplus would have equally valid claims to a share in distribution of the surplus. In what proportion they ought to share is a question by itself, and it should not confuse the fundamental issue. All the partners in production should presumably be partners, not merely in the preliminary rough-and-ready distribution, but in the final distribution. Conventional theory repudiated this reasoning and claimed the whole of the surplus for capital, under the title profits or dividends. The precedents of business are mostly against Marx. The logic that appeals to the dispassionate observer is strongly on his side. The theory that accounts for three partners in the producing process, but loses

sight of all but one of them in the middle of the distributing process may satisfy the one beautifully, but it will never permanently satisfy the other two nor their reflecting neighbors. It fails to convince as ignominiously as the technique of the boy who took the clock apart and put it together again *with one wheel left out!*

"These three ideas, the economic interpretation of history, class conflict, and surplus value, are the chief points of departure in Marx's attempt at a scientific survey of the modern social situation. If it were a pure topographical problem, it is hardly conceivable that any competent engineer would question the necessity of replotting the old survey. So many human passions and interests are stimulated by challenge of tradition, however, that thus far it has been possible to keep the Marxian impulse from the degree of social influence which it deserves.

"Two other points in the Marxian outlook must be mentioned, viz., fourth, his assumption that *the laboring class and the capitalistic class may be sharply distinguished and precisely divided.* For Marx the social campaigner this assumption was convenient and in a large degree correct. For Marx the scientific investigator it was the most fatal mistake. We had no sooner formulated the primary sociological generalization of the universality of social conflict than we made out the equally primary parallel generalization of the universality of co-operation. For certain immediate purposes, human beings may and do form themselves into groups of friends for better or worse, to fight against other groups regarded as absolute enemies. In doing this the other processes of the group life are partially arrested in order that in certain particulars the antagonistic interests of the respective groups may measure strength. These differences having been adjusted, it soon appears that the groups cannot be permanently as exclusive and hostile as they made themselves provisionally. Ameri-

cans and Spanish, Boers and British, Russians and Japanese, employers and employees, presently discover that in the long run it is the best policy for co-operation to control conflict. Thus it comes about that our last rendering of the social process today expresses it in terms of one stage farther along in its evolution than that which most impressed Marx. We assert the universal fact of class conflict as strongly as he did. We assert the universal fact of co-operation more strongly than he did. Then we find the center of the conflict which is the life of society, not in perpetual trial of strength between permanently defined classes, but we see the merging of these earlier alignments into incessant reassortment of classes in perpetual conflict for moral control of the terms of co-operation. Marx was right, as a social tactician, in believing that the class consciousness of wage-earners must be mobilized for a life-and-death struggle against the impersonal force of capital. As a philosopher, even through the smoke of battle, he could see victory perching on a prouder banner than either party carried into the fray. After all, however, it was to his view only a bigger labor-class banner, rather than the standard of a more splendid humanity. I do not feel like quarreling with Marx over this limitation. He fought gallantly for neglected phases of truth. We do ourselves no credit in blaming him for not seeing the whole of the truth. We shall do well if we see as far into the truth as he did, and if while avoiding some of his errors we add even a little to his wisdom.

"The fifth cardinal point in Marx's system was, so to speak, the keel of his proposed ship of state, viz., *the socialization of capital.* In brief, all his visions of reorganized society centered about a state which should be the owner of all productive wealth, while the citizens should be the consumers each of his own share of the output of production.

"From the standpoint of social science it is extremely

naive to suppose that the form in which any constructive principle will be assimilated in a national economic system can be foreseen very far in advance. I must confess that Marx's ideal of economic society has never appealed to me as plausible, probable, desirable, or possible. In essentials Marx was nearer to a correct diagnosis of the evils of our present property system than the wisdom of this world has yet been willing to admit, but his plan for correcting the evils is neither the only conceivable alternative nor the most convincing one. Indeed, from the standpoint of social science any plan at all for correcting the evils of capitalism is premature until the world has probed down much deeper into the evils themselves. Not until we thoroughly understand that our social order now rests on the basis of property, and that it will not be a thoroughly moral order until it is transferred to the basis of function, shall we be in a position intelligently to reflect on social reconstruction. Therewithal I become esoteric, and it is a sign that I should stop."

CHAPTER XII

SOCIOLOGY AND THE SOCIAL SCIENCES

One of the most interesting and instructive chapters in the history of sociology is the controversy which naturally arose as to the relation of sociology to the special group of social sciences—economics, politics, jurisprudence, etc. In the study of sociology, as in any other study, a safe rule is that we best understand what a thing is by learning how it became so. The student who comes to this aspect of the science of society, already knowing the story of the development of biology, finds the task considerably simplified because the two developments have so much in common that they serve to explain and illustrate each other. At the risk, therefore, of a seeming discursion from our proper theme, we shall first trace, briefly, the rise of "biology" as a scientific name. This will have the additional value of introducing the reader, if not already acquainted, to Professor Thomas Henry Huxley. Huxley's "Collected Essays" occupy a place in the world of books parallel to the place of the "Kohinoor" in the world's collection of precious stones. The man who goes to the grave without having read them has missed one of the most enduring pleasures within the gift of modern civilization.

In the volume entitled "Science and Education" there is a chapter, which was first delivered as a lecture, entitled "On the Study of Biology." Here Huxley explains how the term biology came into use and finally displaced the term "natural history" which had previously served.

Huxley begins by quoting the following passage from "The Leviathan" of Thomas Hobbes, the philosopher of Malmesbury:

"The register of knowledge of fact is called history. Whereof there be two sorts, one called natural history; which is the history of such facts or effects of nature as have no dependence on man's will; such as are the histories of metals, plants, animals, regions, and the like. The other is civil history; which is the history of the voluntary actions of men in commonwealths."

After explaining certain changes of meaning which the term "Natural History" underwent, Huxley proceeds to give a piece of very valuable science history:

"But as science made the marvellous progress which it did make at the latter end of the last and the beginning of the present century, thinking men began to discern that under this title of "Natural History" there were included very heterogeneous constituents—that, for example, geology and mineralogy were, in many respects, widely different from botany and zoology; that a man might obtain an extensive knowledge of the structure and functions of plants and animals without having need to enter upon the study of geology or mineralogy, and vice versa; and, further, as knowledge advanced, it became clearer that there was a great analogy, a very close alliance, between those two sciences, of botany and zoology which deal with living beings, while they are much more widely separated from all other studies. Therefore, it is not wonderful that, at the beginning of the present century, in two different countries, and so far as I know, without any intercommunication, two famous men clearly conceived the notion of uniting the sciences which deal with living matter into one whole, and of dealing with them as one discipline. In fact, I may say there were three men to

whom this idea occurred contemporaneously, although there were but two who carried it into effect, and only one who worked it out completely. The persons to whom I refer were the eminent physiologist Bichat, and the great naturalist Lamarck in France; and a distinguished German, Treviranus. Bichat assumed the existence of a spcial group of 'physiological' sciences. Lamarck, in a work published in 1801, for the first time made use of the name 'Biologie,' from the two Greek words which signify a discourse upon life and living things. About the same time it occurred to Treviranus, that all those sciences which deal with living matter are essentially and fundamentally one, and ought to be treated as a whole; and, in the year 1802, he published the first volume of what he also called 'Biologie.' Treviranus's great merit lies in this, that he worked out his idea and wrote the very remarkable book to which I refer. It consists of six volumes, and occupied its author for twenty years—from 1802 to 1822."

We shall now pass to the consideration of the rise of sociology. The problem as to what position sociology should occupy in relation to the already established group of social sciences reached an acute stage when it was sought to introduce sociology into the universities and give it a chair of its own. Many professors, holding chairs in the social sciences, promptly rebelled. To them the new comer was a usurper and a pretender. They objected that the new professors would simply do the work they themselves were already engaged in, the only difference being that it would be done under a new name. Thus the discussion generated much rivalry. There are universities we could name where this feeling of trespass still exists between the professors of economics and the teachers of sociology. The claims of

the sociologists to occupy larger, more general, and therefore more important ground has done nothing to allay the feeling. While this division has in some places amounted to a mild feud, it has never produced petty and disgraceful wrangles such as have divided the Christian church into some hundreds of narrow sects. There is something in the atmosphere of scientific research which raises its controversies to much higher planes than are possible to the shallow bigotry of the theological world. The shameful treatment of Lamarck by Cuvier, and the contemptible attitude of Owen to Huxley and Darwin, are the only exceptions we can recall in the history of science for a hundred years.

"The sociologists," says Professor Small, "have broken into the goodly fellowship of the social scientists, and have thus far found themselves frankly unwelcome guests." Small begins the discussion of the right of sociology to a place among the sciences on the very first page of his "General Sociology:"

"Ever since Comte proposed the name 'sociology,' and parallel with all subsequent attempts to give the term a definite content, one mode of attack upon the proposed science has been denial that it could have a subject-matter not already pre-empted by other sciences. This sort of attack has been encouraged by the seemingly hopeless disagreement among sociologists about the scientific task that they were trying to perform. If sociology has had anything to say about primitive peoples, for instance, it has been accused of violating the territory of anthropology and ethnology. If it has dealt with evidence recorded by civilized races, it has been charged with invading the province of the historian. If

it has touched upon the relations of social classes in modern times, the political scientist or the economist has warned it to cease infringing upon his monoply. Thus sociology has seemed to workers in other sciences either a pseudo-science, attempting to get prestige in their own fields by exploiting quack methods, or a mere collector of the waste thrown aside by the more important sciences. Sociologists themselves have unintentionally done not a little to confirm this impression. As has been hinted above, their failure to agree upon a definition of their science, or upon precise description of their task, has seemed to afford ocular proof that their alleged science was merely a name with no corresponding content."

This dilemma has found its solution in the steady progress of sociology until it has achieved a secure place in the scientific hierarchy. For the student, it is not now a question of, shall sociology be admitted as a science? It is rather a question of understanding why it has been admitted and what are its functions. The sociologists, in dealing with this question, invariably turn to the example of biology for illustration and justification of their position. It is pointed out that, as the various sciences and sub-sciences dealing with separate departments of organic life are united under the term biology, it is proper and desirable that the various sciences and sub-sciences dealing with the different forms of human activity should be united in sociology. It is also shown that biology is not merely a collection of sciences, but is a science in itself, separate and distinct from its subdivisions, having for its subject-matter the great general laws which unite all organic phenomena and which, in the nature of things, could not be properly treated by any science of a sectional character. Human

society also is held to be a great whole, having general laws demanding the creation of a general science, which should have for its subject not any division of human activity, nor yet merely a collection of such divisions, but the study of the social process as a whole. The best development of this parallel is probably that of Professor Giddings where the professor is dealing with "The Province of Sociology" in his book entitled "The Principles of Sociology."

"General biology affords the most helpful analogy. The word 'biology,' first used by Lamarck, was adopted by Comte, who proposed 'sociology,' and he used both the one and the other for like reasons. He believed in a science of life as a whole, as in a science of society as a whole. But 'biology,' like 'sociology,' had no vogue until Mr. Spencer took it up. All but the youngest of our scientific men can remember when it began to creep into college and university catalogues. Neither the word nor the idea obtained recognition without a struggle. What was there in general biology, the objectors said, that was not already taught as 'natural history,' or as botany and zoology or as anatomy and physiology? The reply of the biologists was, that the essential phenomena of life—cellular structure, nutritions and waste, growth and reproduction, adaptation to environment, and natural selection—are common to animal and plant; that structure and function are unintelligible apart from each other; and that the student will therefore get a false or distorted view of his subject unless he is made to see the phenomena of life in their unity as well as in their special phases. He should study botany and zoology, of course, but he should first be grounded in general biology, the science of the essential and universal phenomena of life under all its varied forms. This view of the matter won its

way by mere inherent truthfulness and good sense. General biology became a working laboratory science, conceived and pursued as a ground work of more special biological sciences.

The question about sociology is precisely similar and must be answered in the same way. What aspect of social life is not already brought under scrutiny in one or more of the economic, political, or historical courses already provided in well organized universities? Perhaps none; yet, as the sociologist sees it, this is not the real question. Is society after all a whole? Is social activity continuous? Are there certain essential facts, causes, or laws in society, which are common to communities of all kinds, at all times, and which underlie and explain the more special social forms? If we must answer 'yes,' then these universal truths should be taught. To teach ethnology, the philosphy of history, political economy, and the theory of the state, to men who have not learned these first principles of sociology, is like teaching astronomy or thermodynamics to men who have not learned the Newtonian laws of motion. An analysis, then, of the general characteristics of social phenomena and a formulation of the general laws of social evolution should be made the basis of special study in all departments of social science."

Any struggle on the part of the social scientists against the admission of sociology to a place among them was destined to failure from the beginning. This failure was assured by the epoch-making labors of Comte and Spencer. The place of sociology was really established and made secure before this secondary dispute arose. When Comte and Spencer cast their comprehensive minds over the entire field of human knowledge, they saw that some great general science must of necessity deal with the origin and structure of human society, as

other great general sciences must deal with the origin and processes of the universe and the phenomena of living matter. Thus, before sociology was born, the necessity for its existence was realized and thoroughly understood. Professor Small's classification of the great divisions of human knowledge makes this perfectly clear:

"All the concrete and special knowledge that goes to make up our present sciences has been unified at last around some central conception of subject-matter and appropriate method. We may express the fact for our present purposes in the formula: Physics is the science of matter in its molar and molecular processes; chemistry is the science of matter in its atomic processes; biology is the science of matter in its organic processes. In each case the comprehensive science has the task of organizing details which may already have been studied separately by several varities of scholars.

"The same logical methods which have arrived at these generalizations make irresistably toward the conviction that coherence and unity of knowledge about human experience demand *a science of men in their associational processes.*"

The theory of evolution has done more than any other theory, not only to point out the place which sociology should occupy, but to establish it impregnably in that position. If evolutionary science had not appeared it is difficult to see how sociology could ever have been born. It was undoubtedly the realization of the necessity of applying to social phenomena the same scientific methods and theories that had produced such brilliant results in other fields that led to its creation. This is well and forcefully expressed by Professor Giddings:

"Since Comte, sociology has been developed mainly

by men who have felt the full force of an impulse that has revolutionized scientific thinking for all time to come. The evolutionist explanation of the natural world has made its way into every department of knowledge. The law of natural selection and the conception of life as a process of adjustment of the organism to its environment have become the core of the biology and the psychology of today. It was inevitable that the evolutionary philosophy should be extended to embrace the social phenomena of human life. The science that had traced life from protoplasm to man could not stop with explanations of his internal constitution. It must take cognizance of his manifold external relations, of the ethnical groups, of the natural societies of men, and of all the phenomena that they exhibit, and inquire whether these things also are not products of universal evolution. Therefore, we find not only in the earlier writings of Mr. Herbert Spencer, but also in those of Darwin and Professor Haeckel, suggestions of an evolutionist account of social relations. These hints were not of themselves a sociology. For this, other factors, derived directly by induction from social phenomena, were needed. But such hints sufficed to show where some of the ground lines of the new science must lie; to reveal some of its fundamental conceptions; and to demonstrate that the sociologist must be not only historian, economist, and statistician, but biologist and psychologist as well. On evolutional lines then, and through the labors of evolutionist thinkers, modern sociology has taken shape. It is an intepretation of human society in terms of natural causation. It refuses to look upon humanity as outside the cosmic process, and as a law unto itself. Sociology is an attempt to account for the origin, growth, structure, and activities of society by the operation of physical, vital, and psychical causes, working together in a process of evolution."

CHAPTER XIII

SOCIOLOGY AND THE SCIENTIFIC METHOD

It is related that a farmer called at a certain university and asked a group of students for a professor by name. One of the students, volunteering the information, addressed the farmer thus:

"Crucify the quadrangle, ascend the scalae, execute a dextral vert, and you will find the professor perambulating in his laboratory, or sitting near the fenestrum."

"What," gasped the open-mouthed farmer, "is the fenestrum?"

"The fenestrum," replied his willing informant, "is the aperture through which the dome of the building is illuminated."

This story may or may not be true, but it illustrates one of the barriers between the masses of mankind and the great body of scientific truth wherein lies their only hope of social salvation.

A friend of mine, recently returned from Paris, informs me that one of his greatest surprises came when he attended the lecture halls of the universities and heard the foremost professors and scholars of Europe deliver great lectures upon great questions, open and free to the public, to audiences which in many cases, could have been easily accommodated in a small class-room. One of the reasons for this condition is that scientific men and philosophers tend to develop a world of their own, in which they speak a language which they alone understand. The mass of scientific books are written

in that language, and to the average man, be he a wage-worker or engaged in business pursuits, they convey little or no meaning. Such a man will accidentally pick up a scientific book and discovering by a glance at its pages that such is its character, he lays it down, immediately realizing that it was never intended for his perusal.

We are not overlooking the difficulty of expressing the great mass of scientific ideas and theories in common language; we are fully aware that writers of scientific books would be well able to present an excellent case in behalf of their usage of scientific terms, but the resulting inability of the general public to become acquainted with modern scientific knowledge is none the less deplorable.

There is every ground for believing that if the scientific knowledge already achieved could be made the common property of the mass of men, it would amply suffice for the solution of the great majority of our social problems and launch the human race in a society which would in some measure correspond to the millenial dreams of poets and prophets, who have had visions of the golden age and the brotherhood of man.

Scientific knowledge, however, is of comparatively small value until it is put into operation, and our societies are so constituted that this cannot be done except in response to a general and intelligent demand. The first requisite to this achievement is that scientific ideas shall find a lodgement in the general mind. The mass of men cannot move or be moved by ideas that are the exclusive property of a select few any more than one

boiler could generate steam by a fire located under another boiler. We therefore believe that Lester F. Ward has given expression to the greatest need of our time in making the socialization of knowledge the supreme goal of his system of sociology.

On its practical side this program is met by a very serious dilemma. The moving force for social change must be looked for among those members of society who are the chief sufferers from the injustices and anomalies of our social system. These are undoubtedly the great mass of men and women who work for wages, and it is precisely these men and women to whom scientific knowledge is the least accessible. The only chance for even the next generation lies in the public schools. But, unfortunately, the class in society, which reaps where it has not sown, and is enriched by the labor of others, dominates our political system through a multitude of agencies and, among other things, dictates the policy of our school system. The result is that those particular scientific ideas and tendencies which would disturb their status to the advantage of the wage working class are rigorously suppressed, so that, on the one hand, there is practically no opportunity for the working class to become possessed of knowledge it most imperatively needs, and on the other the public school system cannot be transformed so as to make it effectively communicate the desired knowledge to its pupils until there is a sufficient demand on the part of the working class itself to carry the threat of a violent and successful revolution as the only alternative. And this demand cannot arise until the workers themselves realize the nature and im-

portance of such knowledge, and, as we have already remarked, their only chance of acquiring this is through the medium of their children in the public schools. Thus we find ourselves in a vicious circle, from which there is no apparent escape.

The situation, however, is not so hopeless as this would indicate; there are a variety of forces in operation which tend to break the circle at a number of points. In this place we shall deal with only one of these. A number of scientific men, and their number is steadily increasing, have realized the desirability of reaching the general public with their teachings. Not only this, but there has arisen another body of men, and these also are increasing, who, while they are not scientific men themselves in the precise meaning of that term, have taken upon themselves the task of interpreters. These men are generally referred to as popularizers of science. In certain dignified quarters, occupied by men who, being extremely comfortable themselves, have no disposition to descend into the dust and struggle of the masses, it is fashionable to decry the popularizers of science as the "vulgarizers" of science.

Wherever scientific men have labored to produce scientific books within the intellectual grasp of the common people, the results have more than justified their efforts. One of the most notable cases of this kind is to be found in the "Lectures for Working Men," delivered in England by Professor Huxley to immense audiences of eager working men, and many workers who never had the pleasure of listening to Huxley's voice have nevertheless found access to the world of scientific

knowledge through the reading of those lectures in Huxley's "Collected Essays." The course of lectures on evolution, specially delivered for working men, have probably done more for the advancement of evolutionary ideas in the English-speaking world than any other single publication, with the exception, of course, of Darwin's 'Origin of Species."

No man realized more clearly the tremendous value of scientific knowledge for the oppressed working class than Karl Marx. Wilhelm Liebknecht, in "Memoirs of Marx," tells us that during the period of their mutual exile in London, they religiously attended Huxley's "Lectures to Working Men." If the mass of scientific men had followed Huxley's method and possessed Huxley's ability to make it effective, the public school system would by this time be a vastly different institution, and there is no means of measuring the effect it would have had on the entire social process.

One of the most lamentable results of the almost impassable barrier between the sciences and the people is that to the mass of men the methods of science are enshrouded in mystery. The clearing away of this delusion is the first step in the direction of better things, and no man has exposed it more completely than Huxley. The passage in which he does this deserves to be read with the closest attention. It is a demonstration of how difficult things can be rendered extremely simple:

"The method of scientific investigation is nothing but the expression of the necessary mode of working of the human mind. It is simply the mode at which all phenomena are reasoned about, rendered precise and exact. There is no more difference, but there is just the same

kind of difference, between the mental operations of a man of science and those of an ordinary person, as there is between the operations and methods of a baker or of a butcher weighing out his goods in common scales, and the operations of a chemist in performing a difficult and complex analysis by means of his balance and finely-graduated weights. It is not that the action of the scales in the one case, and the balance in the other, differ in the principles of their construction or manner of working; but the beam of one is set on an infinitely finer axis than the other, and of course turns by the addition of a much smaller weight.

"You will understand this better, perhaps, if I give you some familiar example. You have all heard it repeated, I dare say, that men of science work by means of Induction and Deduction, and that by the help of these operations, they, in a sort of sense, wring from Nature certain other things, which are called Natural Laws, and Causes, and that out of these, by some cunning skill of their own, they build up Hypothesis and Theories. And it is imagined by many, that the operations of the common mind can be by no means compared with these processes, and that they have to be acquired by a sort of special apprenticeship to the craft. To hear all these large words, you would think that the mind of a man of science must be constituted differently from that of his fellow men; but if you will not be frightened by terms, you will discover that you are quite wrong, and that all these terrible apparatus are being used by yourselves every day and every hour of your lives.

"There is a well-known incident in one of Moliere's plays, where the author makes the hero express unbounded delight on being told that he had been talking prose during the whole of his life. In the same way, I trust, that you will take comfort, and be delighted with yourselves on the discovery that you have been

acting on the principles of inductive and deductive philosophy during the same period. Probably there is not one here who has not in the course of the day had occasion to set in motion a complex train of reasoning of the very same kind, though differing of course in degree, as that which a scientific man goes through in tracing the causes of natural phenomena.

"A trivial circumstance will serve to exemplify this. Suppose you go into a fruiterer's shop, wanting an apple,—you take up one, and, on biting it, you find it is sour; you look at it and see that it is hard and green. You take up another, and that too is hard, green, and sour. The shopman offers you a third; but, before biting it, you examine it, and find that it is hard and green, and you immediately say that you will not have it, as it must be sour, like those that you have already tried.

"Nothing can be more simple than that, you think; but if you will take the trouble to analyze and trace out into its logical elements what has been done by the mind, you will be greatly surprised. In the first place, you have performed the operation of Induction. You found that, in two experiences, hardness and greenness in apples go together with sourness. It was so in the first case, and it was confirmed by the second. True, it is a very small basis, but still it is enough to make an induction from; you generalize the facts, and you expect to find sourness in apples where you get hardness and greenness. You found upon that a general law, that all hard and green apples are sour; and that, so far as it goes, is a perfect induction. Well, having got your natural law in this way, when you are offered another apple which you find is hard and green, you say, 'All hard and green apples are sour; this apple is hard and green, therefore this apple is sour.' That train of reasoning is what logicians call a syllogism, and has all its various parts and terms,—its major premiss, its minor premiss, and its conclusion. And, by the help of further reason-

ing, which, if drawn out, would have to be exhibited in two or three other syllogisms, you arrive at your final determination. 'I will not have that apple.' So that, you see, you have, in the first place, established a law by Induction, and upon that you have founded a Deduction, and reasoned out the special conclusion of the particular case. Well now, suppose, having got your law, that at some time afterwards, you are discussing the qualities of apples with a friend: you will say to him, 'It is a very curious thing,—but I find that all hard and green apples are sour!' Your friend says to you, 'But how do you know that?' You at once reply, 'Oh, because I have tried it over and over again, and have always found them to be so.' Well, if we were talking science instead of common sense, we should call that an Experimental Verification. And, if still opposed, you go further, and say, 'I have heard from the people in Somersetshire and Devonshire, where large number of apples are grown, that they have observed the same thing. It is also found to be the case in Normandy, and in North America. In short, I find it to be the universal experience of mankind wherever attention has been directed to the subject.' Whereupon, your friend, unless he is a very unreasonable man, agrees with you, and is convinced that you are quite right in the conclusion you have drawn. He believes, although perhaps he does not know he believes it, that the more extensive Verifications are,—that the more frequently experiments have been made, and results of the same kind arrived at,—that the more varied the conditions under which the same results have been attained, the more certain is the ultimate conclusion, and he disputes the question no further. He sees that the experiment has been tried under all sorts of conditions, as to time, place, and people, with the same result; and he says with you, therefore, that the law you have laid down must be a good one, and he must believe it.

"In science we do the same thing;—the philosopher exercises precisely the same faculties, though in a much more delicate manner. In scientific inquiry it becomes a matter of duty to expose a supposed law to every possible kind of verification, and to take care, moreover, that this is done intentionally, and not left to a mere accident, as in the case of the apples. And in science, as in common life, our confidence in a law is in exact proportion to the absence of variation in the result of our experimental verifications. For instance, if you let go your grasp of an article you may have in your hand, it will immediately fall to the ground. That is a very common verification of one of the best established laws of nature—that of gravitation. The method by which men of science establish the existence of that law is exactly the same as that by which we have established the trivial proposition about the sourness of hard and green apples. But we believe it in such an extensive, thorough, and unhesitating manner because the universal experience of mankind verifies it, and we can verify it ourselves at any time; and that is the strongest possible foundation on which any natural law can rest. So much by way of proof that the method of establishing laws in science is exactly the same as that pursued in common life."

One of the most important things about the scientific method is that it demands constant contact with real things as the only process by which truth can be obtained. The nature of truth itself is another of the subjects which has always been wrapped in mystery and is, indeed, supposed to be beyond the comprehension of even the philosophers themselves. The truth about truth, however, is comparatively simple. We cannot speak about things themselves as being true or false. There is no such thing as a true tree or a false tree, or

a true river or a false river. Truth does not apply to the things themselves, but relates only to our ideas of things. We may have a true idea about trees and rivers or we may have a false idea about them; or we may have true or false ideas about a certain tree or a certain river. For example, our idea of a river may be that it is shallow; the question as to whether this idea is true or false depends upon whether the river is shallow or deep. If the river is shallow our idea is true, and we are the possessors of the truth upon that question; if the river is deep, we are the victims of error. Truth in this case, and in every other case, depends upon there being a correspondence between the thought and the thing; if the thought and the thing are identical, we have the truth. This is what George H. Lewes meant by saying "Truth is identity." Herbert Spencer expressed it more clearly and simply in his "Principles of Psychology," "Truth is the actual correspondence of the subjective and objective relations," which being translated into common language would read, Truth is the actual correspondence between thoughts and things.

The reason sociology is even yet in its infancy is that we have only recently applied the scientific method to social phenomena. Yet, although this application is a thing of yesterday, the results already obtained are extremely gratifying and big with hope and promise for the future. We have every reason to expect that the tremendous revolution wrought by the scientific method in our thought about the inorganic and the organic world will also be accomplished in our thinking about

society. Social conservatism is already discredited and social radicalism is on the threshold of victory.

There are two fields of research to which we may look for these developments; one is the science of sociology and the other is, what we now see to be one of its sub-sciences, political economy. Political economy is much the older science and, on this ground, we might be disposed to expect the greater achievement at its hands. This, however, is by no means the case. For some reason or reasons, political economy is conservative and stagnant, while sociology has already reached the point where it is radical and progressive. After long deliberation upon this enigma, I have myself concluded that the reason for this difference is mainly as follows: Sociology is a much wider science than political economy; it requires for its understanding some considerable knowledge of the sciences in which the scientific method is in constant use. Herbert Spencer treating of society as an organism, comparing it to a biological organism, has driven the sociologists, who must needs of course study Spencer's "Sociology," to form a close acquaintance with biological science. This is only one particular instance of the general truth that sociology, searching for its foundation and its correlations, reaches forth into a number of scientific fields where the theological, metaphysical, and conventional methods generally, have long been abandoned. This has given the sociologists a training which makes them conscious of the indispensability of the scientific method with its constant verification of ideas by direct contact with the world of reality. The economists, on the other hand,

are isolated in the study of the phenomena of wealth production and distribution, and have no vital connection with biology or physics. Especially on their philosophical side, have they failed to receive the scientific impress which has fallen to the lot of their brothers in the larger science. If one wishes to realize how hopelessly sterile political economy has become, it is only necessary to pick up any standard work on the subject and observe the maze of fantastic, metaphysical, and incoherent notions with which it is filled. On the other hand, there is nothing in literature, scientific or otherwise, superior in profundity or clarity to the sociological works of Lester F. Ward, and this is true of other sociologists in a less degree.

The idea of progress is so thoroughly vindicated by the evolutionary philosophy, which is now everywhere triumphant, that the test of a sociologist's work may be found in his progressive or conservative attitude and tendencies. The sociologist who is reactionary on social questions must be judged by severer standards than those applied to the social ideas of men whose life labor lies in other fields. Herbert Spencer, for example, was probably the most utterly reactionary thinker of the 19th century on sociological questions, and if Herbert Spencer had been a sociologist only, or a sociologist chiefly, we should be entitled to judge him and determine his place in history by these backward social opinions. But Herbert Spencer was, first of all, an evolutionary philosopher, and in this field he was thoroughly radical and progressive, and history will judge him, not by his Manchester school politics, but by the great part he played in

the dislodgement of theological superstitions about the history and nature of the universe.

Professor Huxley wrote essays on political and economic questions, whose value was about equal to the paper they were written upon, and had Professor Huxley been a sociologist, he would have outlived his fame. But Huxley was a biologist and must be judged, not by his idea that capital is the mother of labor, but by his labors in organic science. Alfred Russell Wallace was in one respect at least the equal of Darwin. He discovered independently of Darwin the great theory of natural selection, and, although Wallace allowed himself to be deceived by charlatan mediums of the type of Eusapia Paladino and gave solemn and public credit and sanction to frauds which would have been detected by an average newsboy, his position in the scientific world is secure because of the immense value of his labors in the field then known as "natural history." The social conservatism of a biologist or a physicist, is one thing; the social conservatism of a sociologist is another.

The difference is fully realized by the authorities of most of the universities. A friend of mine, who is a professor of sociology in one of the foremost universities of America, told me that in his university a socialist society had been established, and that he himself did not dare to join it, much as he desired to do so. The reason given was that the authorities did not mind professors of biology or chemistry, or teachers of civil engineering, etc., belonging to a socialist club, but that they did very strenuously protest against the professors of sociology or political economy following that course.

This protest, of course, is because of the fact that socialist opinions or any other radical opinions would be directly and vitally related to such a professor's teaching. Such is the influence of sociology, however, upon the minds of its teachers that there is probably a greater percentage of socialists and socialistically inclined among sociologists than the professors of any other science. To take a concrete illustration: in the University of Chicago, Professor Small is the Dean of the Sociology Department. His writings show that by natural inclination and temperamental predisposition, he is a conservative of the conservatives; on the other hand, Professor Foster, who as an authority on the philosophy of religion of which he is professor, has probably no equal in this country, clearly evidences by the tone of his work that he is by natural bent a radical of the radicals. His labors for a wider toleration in the religious world, entitle him to the respect and admiration of all who recognize toleration as a fundamental necessity of social progress. Yet, so thoroughly is the mind affected by the material in which and with which it works, that, on sociological questions Sociologist Small, with all his natural conservatism, easily distances divinity Professor Foster, notwithstanding his natural endowment of progressive tendencies. A fair test of the validity of this conclusion may be found by comparing Chapter XI of this book with Professor Foster's recent pronouncement that "Socialism would suck up all human life into the great question of the stomach and would like to bend all the higher human powers, science, art, all love and all faith under the yoke of economic necessity, etc., etc." Let

us compare this condemnation with Professor Small's statement on precisely the same point, which has already been quoted in Chapter XI: "Not to break into the controversy as to what Marx did or did not say about the economic interpretation of history, or how much more remains to said, the gist of the whole matter is the homely fact that if there is anything insecure about a man's chances of getting tomorrow's dinner, or anything unjust about the ways in which he is forced to use the chances, there will be nothing quite right about the rest of his mental or emotional or moral life." And Small adds: "The only remarkable thing about this proposition is that there are still intelligent human beings of adult age who have not discovered that it is a commonplace."

The truth of the matter is that the study of a great and widely laid science, allied with sciences which have taught it the imperative need of the scientific method, has enabled Professor Small to rid himself of the foolish, prattling nonsense about socialism which exercises itself in the editorial columns of subsidized newspapers. While the study of divinity, which has wrecked greater intellects than that of Professor Foster, has left him the victim of misrepresentations of socialism which would disgrace the mental acumen of the average dock laborer.

If we were looking for an example of how reactionary opinions may take root even among sociologists whose training and intellectual environment are so favorable, we might find it in Professor Giddings. We have already quoted Professor Giddings where we found him at his best and his best is indeed good, but we confess to having read almost three or four pages at a time

of his book and then turning back again and reading them over in an effort to find out if they really had any ideological content.

The history of sociology and the history of philosophy have one thing in common; all the great philosophers labored to establish their philosophies on some foundation different from the foundation employed by their predecessors. A very good reason for this was that the previous foundation had proved thoroughly inadequate to the support of the superstructure erected upon it. A reading of the literature of sociology reveals something which suggests the comparison. Each sociologist endeavors to find a foundation of his own upon which to build his interpretation of social process as a whole. Professor Giddings selects as his basis the "consciousness of kind." In our opinion the criticism of this theory offered by Professor Small, that it is the result of too much admixture of subjective interpretation with too small a quantity of objective reality, is entirely justifiable. This lack of a proper ground work and this disposition to depart from the necessity of verification with reality demanded by the scientific method, comes out very startlingly when Professor Giddings reaches his climax.

There is a great deal to be said for the value of "consciousness of kind" as a social principle or social force. It might be said that much more of it is desirable, and as Professor Small points out, what we have seen chiefly in the past has been societies rent by class struggles due to the "consciousness of unlikeness," which at bottom is the consciousness of unlike interests, and which, in the language of Marx, really is a consciousness of difference

of class interests. If consciousness of kind should ultimately triumph we should naturally expect that it would wipe out differences of class, social differences and inequalities growing out of differences of color and nationality, and we should surely be justified in believing that it would operate to abolish antagonisms which have grown out of differences of creed. What is our surprise and amazement then to discover that Professor Giddings finds the highest expression of consciousness of kind in the Christian religion, and especially in that particular manifestation which takes the form of philanthropy and missionary enterprise. Lest the reader find this incredible, we shall allow Professor Giddings to speak for himself. The closing paragraph of Chapter IV, Book III, of "Principles of Sociology," in which chapter Professor Giddings is dealing with progress as an expansion of consciousness of kind, is as follows:

"The successive world-empires of Persia, Macedonia, and Rome prepared the way for the Christian conception of universal brotherhood. So long as this conception was nothing more than an esoteric affirmation that all men are brothers, because they are the children of one Father, it made but little impression on the social mind; but when by the genius of St. Paul it was converted into an ideal, into the doctrine that all men through a spiritual renewing may become brothers, the new faith underwent a transformation like that which converted the ethnic into the civic conception of the state, and Christianity became the most tremendous power in history. Gradually it has been realizing its ideal, until, today, a Christian philanthropy and a Christian missionary enterprise, rapidly outgrowing the esoteric sentimentalism of their youth, and devoting themselves to the diffusion of knowledge, to the improvement

of conditions, and to the upbuilding of character, are uniting the classes and the races of men in a spiritual humanity.

The idea that St. Paul was a great champion of social advancement would come properly enough from the Methodist pulpit, but it has an odd look in the pages of a treatise on modern sociology. Christian philanthropy, even as a provisional crutch, has proved a dismal failure and it is altogether past our comprehension how any sociologist, however favorably he may be disposed toward the faith named, could regard it as anything more than the merest makeshift, pending the realization of something which might be called social justice. As for Christian missionary enterprise; all impartial investigations have gone to show that the best thing that could be done in the interests of the Christian missionary societies would be the total abolishment of all records of fact concerning it. The idea that Christianity is the great motor force of social development might obtain some recognition in a theological seminary, but if Professor Giddings imagines that it will ever excite more than a head-shake among the sociologists of the future, he is a victim of the same blindness which has prevented him from learning anything from the actual history of the Christian faith. The professor has probably read the histories already referred to, by White and Draper, and we might suggest that he read them again and this time pay some attention to the indisputable facts which those books contain.

The history of thought and thinkers presents some strange anomalies, such as the case of Wallace, already referred to, writing great books on biology and talking

twaddle about what happened in a pitch dark room when his hands were held to prevent him from even feeling about him, and a number of similar instances might be cited, to which we may now add Professor Giddings, writing splendidly on the subject of cosmic and biological and social evolution and landing in the closed alley of Christian missionary enterprise.

CHAPTER XIV

THE SOCIAL FORCES

The remainder of this book will be devoted to a presentation of the principal social theories of Lester F. Ward. These pages make no pretense of adding anything new to existing sociological theories. Only a few specially favored mortals are permitted to explode the ancient proverb that there is nothing new under the sun. I am content to perform the humbler task of interpreting the great ideas born of the research of others to working men and women who might not otherwise become acquainted with them. The two thousand such working men and women who have composed my weekly lecture audience in the Garrick Theatre for the last six years, eleven hundred of whom purchased this book before a single word of it was written, have kept me busy with requests for advice as to what books they should read in order to obtain the best possible educational results. For quite some time, it has been my custom to answer that question by recommending the questioners to get any or, if they could afford, all of the works of Lester F. Ward.

For many centuries, philosophers and scientists, especially the former, have labored to discover the ultimate reality of the universe. The result has been a general division of modern thinkers into two camps, one maintaining that the reality consists of force; the other that the underivable ultimate is to be found in matter.

Among those who believe in the supremacy of force probably the greatest is Herbert Spencer. Mr. Spencer disposes of the claims of matter by describing it as simply "centers of force." To Spencer and those who hold his views, Ward gives the name "dynamists."

Ward himself maintains that matter is entitled to the throne, and he and those who agree with him are properly called materialists. During recent years it has been quite the fashion to assert that in the scientific world materialism has been, or is being, abandoned. No statement could be further from the truth. Some ideas which have been represented as materialism have been given up, but scientific materialism, in our estimation, holds an impregnable position and the trend of scientific research is destined to make this evident. We are now dealing with the first volume of Ward's "Dynamic Sociology." Here Ward asks and answers the question, What is matter?

"But still the question will be asked, What is matter? A definition of matter is impossible. Matter is the final limit in the definition of everything else. Any definition would involve the use of terms requiring the notion of matter to define them. When we have said that matter is what it appears to be, we have defined it as far as it admits of definition. But, while the term matter can not be defined, something may, perhaps, be said with regard to the ultimate constitution of matter. Although the vulgar impression respecting it is substantially correct, and the speculations of the metaphysicians are incorrect, it must still be admitted that the former are as crude as the latter are false. The vulgar intellect, while its practical intuitions concerning material objects are in the main just, practical, and reliable, nevertheless has no adequate conception of the subtilty of

matter. It has no idea of the minuteness of its ultimate divisions. It looks upon matter wholly from a molar point of view, and knows nothing of molecular phenomena. If molecular phenomena are presented to such an intellect, they are not referred to the material category at all. The phenomena of light, heat, electricity, and even of gases, as in the atmosphere, are not considered as material agencies. But this only proves that the manifestations of matter are governed by uniform laws, whatever the magnitude of the aggregates which operate to produce those manifestations. I do not mean that there is anything in molar phenomena which precisely corresponds with some of the manifestations of molecular phenomena, but simply that there is nothing in molecular phenomena which indicates that matter in the molecular state is controlled by any different laws from those which control it in the mass. The most successful experiments in molecular physics have been those that have proceeded on the assumption that the so-called molecular forces were simply the manifestations of ordinary matter in extremely minute particles acting relatively to each other and to other objects precisely as larger particles would act under analogous conditions."

It will be seen from the above that Ward's matter is identical with Haeckel's "substance." Having dealt with matter, he proceeds to consider force. Force is held to be simply a relation of matter. Ward, therefore, considers that the universe is composed of aggregations of matter. The material aggregations composing the universe are three in number—the inorganic aggretion; the organic aggregation; and the social aggregation. These aggregations are formed by a system of compounding the aggregates previously formed. The organic aggregation is formed by the compounding and recompounding of the inorganic. The organic aggre-

gates—men—are in turn compounded and re-compounded in the production of the social aggregate. The first living result of the compounding and re-compounding of non-living matter is protoplasm:

"This complex stage of aggregation is no longer an hypothetical one. The molar aggregate resulting from such a re-compounding of the albuminoids has been discovered. It exists under diverse conditions, and manifests properties fully in keeping with its exalted molecular character. This substance, discovered by Oken in 1809 and denominated *Urschleim,* recognized by Dujardin in 1835 and called *sarcode,* and thoroughly studied by Mohl in 1846, who named it *protoplasm,* has now passed unchallenged into the nomenclature of modern organic chemistry under the last-mentioned title.

"Protoplasm is a real substance, found in considerable abundance in nature, not only within the tissues of organized beings, but, as we might almost say, in a mineral state, wholly disconnected from such beings. There is no more doubt that it is elaborated out of the inorganic elements than there is that ammonia or common salt is thus elaborated. It is a true chemical compound, in which the proportions of each element are known. It contains approximately 54 parts of carbon, 21 parts of oxygen, 16 parts of nitrogen, 7 parts of hydrogen, and 2 parts of sulphur, in 100 parts."

Ward then traces the development of organic life from protoplasm at the base, to man at the top. The organic aggregation includes man, not only as to the development and structure of his body, but also as to the origin and processes of his mind. This brings Ward to the third great aggregation—society. In the opening paragraph of this division, he gives the following summary:

"The phenomena of sociology, unlike those of an-

thropology, but equally with those of biology and psychology, present us with an additional instance of the great cosmic process of aggregation which we have sought to trace out. Just as the highest chemical aggregates forming the chemical substance protoplasm are compounded and re-compounded in the formation of physiological and then of morphological units, and just as these are further re-compounded to form organic aggregates of the first, second, third, etc., orders, so are the highest of these organic aggregates, or men, compounded anew, on precisely the same principle, to form society. And this is the last and highest step with which we are acquainted of this long, unbroken series of cosmical aggregations leading from the ultimate material atom up to social aggregate."

In the history of society Ward recognizes four stages: The first stage belongs to prehistoric time, when man emerged from what Ward believes to have been the condition of solitude into the formation of small groups. The second stage arrived when several of these small groups were obliged to unite as the only alternative to being destroyed by the unfavorable elements in their environment. In this secondary stage of social development the natural antagonism between the groups now united into one body was not abolished, but simply held in restraint in the interests of the safety of the group-federation. In order to make this restraint permanent, thus insuring the continued existence of the social structure, government was established. The establishment of government marks the third stage of social progress. Just as the first stage is purely theoretical and belongs to the remote past, the fourth stage is almost purely speculative and belongs to the future. The fourth stage will be reached by "a triumph of practical interests, that

shall sweep away the present barriers of languages, national pride, and natural uncongeniality and unite all nations in one vast social aggregate with a single political organization."

The three great aggregations, inorganic, organic and social, are theaters for the operation of their own particular forces. The forces acting in the inorganic world are chemical; the forces of the organic world are vital; the forces of the social world are social forces. The forces differ in these different worlds, because each world is composed of matter organized in a different way.

We now come to Ward's treatment of "The Social Forces." At the outset the social forces separate into two main divisions—the essential forces and the non-essential forces. The essential forces are again divided into two orders—the preservative forces and the reproductive forces. The preservative forces and the reproductive forces are each again divided. The preservative forces are positive and negative. The positive preservative forces are such as drive us to seek pleasure; the negative preservative forces are such as compel us to avoid pain. The preservative forces deal with the maintenance of the existing generation. They are the forces which drive us on the positive side to seek a food supply and on the negative side to seek protection from climate, etc., by means of clothing and dwellings. The reproductive forces deal of course, not with the preservation of the present generation, but with the perpetuation of the race by means of sex. Just as the preservative forces are positive and negative, the reproductive forces are direct and indirect. As the positive preservative forces are seeking pleasure by means of satisfy-

ing the hunger for food, the direct reproductive forces seek pleasure by the satisfaction of the sexual and amative desires. And as the negative preservative forces seek to avoid pain by protection from the weather, the indirect reproductive forces seek protection of offspring by means of parental and consanguineal affections. This completes the catalogue of the essential forces. These are the forces, as their name implies, without which society cannot exist.

We now come to the non-essential forces. These are three in number: first, the esthetic force; second, the emotional or moral force; third, the intellectual force. In order to assist his readers in the comprehension of this scheme of social forces, Ward presents in "Dynamic Sociology" the following table, which re-appears at a later date without modification in his book "Outlines of Sociology."

THE SOCIAL FORCES ARE:

- Essential Forces.
  - Preservative Forces.
    - Positive, gustatory (seeking pleasure).
    - Negative, protective (avoiding pain).
  - Reproductive Forces.
    - Direct. The sexual and amative desires.
    - Indirect. Parental & consanguineal affections
- Non-essential Forces.
  - Æsthetic Forces.
  - Emotional (moral) Forces.
  - Intellectual Forces.

In his further analysis of these social forces, Ward emphasizes the difference between feeling and function. The preservative forces of nutrition operate, not through their function, but through the feeling of hunger. The

seats of the feelings of pleasure which accompany eating are different from those of the functions which operate in digestion. Men eat, not because they understand that they must eat in order to live, but because they feel hungry. It is quite conceivable that a race of creatures might exist, who would require food as much as we do, but who would have no feeling of hunger. It is clear, however, that it could not continue to exist long, because in the absence of the feeling of hunger eating would be suspended and extinction would follow. The same principle applies to the operation of the reproductive forces. From the point of view of feeling, the physical organs of reproduction may be considered as the seat of a special class of desires; from the point of view of function, they are nature's means of continuing the race. These two qualities are distinct and independent in the case of reproduction, as in the case of nutrition. In nutrition the taste is pleasurable and conscious, while digestion is an unconscious process. Nature has placed powerful guardians of feeling at the gateways of both these functions. If it were not for the feelings concerned in the reproductive process, it is practically certain that race suicide would be the consequence.

Ward proceeds to unite the two essential social forces under one title. This single title is "Desire." His best statement of this principle is to be found in his chapter on the "Philosophy of Desire," in "Psychic Factors of Civilization":

"This much, at least, has been learned, that desire is the all-pervading, world-animating principle, the universal *nisus* and pulse of nature, the mainspring of all action, and the life-power of the world. It is organic

force. Its multiple forms, like the many forces of the physical world, are the varied expressions of one universal force. They are transmutable into one another. Their sum is unchanged thereby, and all vital energy is conserved. It is the basis of psychic physics and the only foundation for a science of mind.

"It should, however, be added that the parallel between physics and *psychics,* as thus defined, fails at one point. While, so far as is known, there has never been any loss of psychic energy, it is certain that there has been an immense increase of it. Indeed, time was when none existed. It has developed or been evolved with all organic nature and has increased pari passu with the increase of mind and the development of brain. Complete analogy between the organic and inorganic forces is not reached until it is recognized that the former are derived from the latter, and that vital and psychic forces are simply additional forms of the universal force. The soul of man has come from the soul of the atom after passing through the great alembic of organic life."

The non-essential forces are of three classes; first, those of the senses of sight and hearing—the esthetic forces. These include sculpture, painting, landscape gardening, architecture, etc., which appeal to the eye; and music, which appeals to the ear.

The second class of the non-essential forces, are the moral forces. These are made up in Ward's classification of the love forces and the fear forces. The love forces are bound up in sex, from which they undoubtedly derive their origin. The fear forces are of two kinds—the physical fear forces and the psychical fear forces. The physical fear forces are fear of violence, fear of man, fear of animals, fear of inanimate nature,

and the fear of disease. The psychical fear forces are described as "those fears and hopes, which men experience of harm or good to their supposed immaterial part, the soul." All the psychic fear forces are of a religious nature. The chief of these fears is due to the belief in punishment in a future life.

Ward, in his treatment of this question, and of all phases of the religious question, writes with a breadth and a scientific and philosophical grasp which entitle him to a place with Comte and Spencer, and is in marked contrast to the feeble puerility of Professor Giddings' laudations of Christian missionary enterprise.

As we shall lack space for a contemplated chapter dealing with Ward's views of religion as a social factor, we shall quote at length in this place what Ward has to say on the subject, under the head of "Psychical Fear-Forces." Ward is discussing two great religions which include a future life in their tenets—Christianity and Mohammedanism. He is discussing the effect upon modern civilization of the appearance in history of these two faiths.

"Without speculating upon the influence of Christianity, and later, of Mohammedanism, in Asia, where the people were less enlightened, and where the form of religion, probably, did little either to elevate or degrade them, we will turn our attention to Europe, where, especially in Greece and Italy, literature and the arts were in a high state of cultivation. The question then is, In what respect would the civilization of Europe be different from what it is today had the Grecian polytheism remained unmolested by Christianity and all other forms of faith?

"Greece and Rome maintained toward the national re-

ligion an attitude quite analogous to that which Germany, France, Great Britain, and America present now toward Christianity. The masses believed and went through the ceremonies, while the philosophers and school-men stood aloof and remained indifferent to religion, appearing to consider it beneath their notice, just as now the rank and file observe the forms of the Church, while the most cultivated, and notably those engaged in scientific investigation, are for the most part indifferent to religion, and do not feel called upon to devote any time from their pursuits to its consideration.

"There were indications, then, that the bonds of religious restraint were about to fall from the people, and the light of knowledge be admitted to all, just as now we see the forms of religion more and more ignored, and education further and further extended. But Christianity rekindled the religious zeal, proscribed philosophy, abolished the schools, and plunged the world into an abyss of darkness from which it only emerged after twelve hundred years. Ignorant of what would have happened if this had not happened, nothing is left but to regard the advent of Christianity as a calamity. And, if we look at the history of Christianity, we find that its activities have been so intense and its deeds so violent that it has been almost impossible for thought to obtain a foot-hold. Mohammedanism was no better, but its field of operations has been less unfortunate."

Finally Ward reaches the last of the non-essential forces—the intellectual forces. The question of the role enacted by the intellect in the social process is too great to be disposed of in these closing sentences, and it will form the theme of the next chapter.

CHAPTER XV

FACTORS OF SOCIAL PROGRESS

In studying the works of Lester F. Ward, there is one question of deep interest and paramount importance brought forward again and again,—the part played by the intellect in the social process. In Ward's plotting of social development the intellect is not catalogued as a motor force. As we have already seen, a grand social force, which is in the social world what gravitation is in the physical, is "desire." By desire is meant those imperative appetites which are common to all mankind and equally common to all the higher animals, the appetites of hunger and sex. It is true there is an intellectual appetite, but this, unfortunately, is far from being universal and this lack of universality, and its general existence in a low state of intensity, prevents it from being a social force except in a secondary sense.

A clear statement of this occurs in the first volume of "Dynamic Sociology:"

"The mind-force, as popularly understood, is no force, but only a *condition.* It does not propel, it only directs. It is not mind, except within the narrow limits of this definition, that achieves the vast results which civilization presents, and which, it must be admitted, could not be achieved without it. It is the great social forces which we have been passing in review that have accomplished all this. Mind simply guides them in their course. The office of mind is to direct society into unobstructed channels, to enable these forces to continue in free play, to prevent them from being neutralized by

collision with obstacles in their path. In a word, mind has for its function in civilization to preserve the dynamic and prevent the statical condition of the social forces, to prevent the restoration of equilibrium between the social forces and the natural forces operating outside of them. Just as it is not psychological force which propels the water-wheel or the piston—which could not, nevertheless, be made to operate without it—but merely the forces of gravity and gaseous expansion compelled by mechanical power under the guidance of intelligence to operate for the benefit of man, so it is not mind which moves the civilization of the world, but only the great and never-ceasing forces of society, which but for the guidance of mind would rush blindly on into a thousand entanglements with rival forces, and assume that position of statical equilibrium which represents social stagnation. The only proper intellectual propelling force in society is the desire which the mental organ experiences in common with all the rest to act, and the immediate results which flow from its activity."

The above passage, though stripping the mind of any claim to be considered a social force, nevertheless presents it in a role of great importance. While the mind is not essential to social existence, it is the sole cause of social progress. This conception is somewhat baffling and difficult to grasp, but it is none the less true, and certainly is the position taken by Ward. The introduction to the volume above named presents a very interesting study of this whole problem. This shows that, throughout history, it is feeling and not intellect which has influenced human action. The great and successful religious systems of Menu, Zoroaster, Confucius, Jesus, and Mohammed make their appeal not to the intellect, but to the feelings. The consequence was that, while

they were great successes in extending their influence over the actions of men, they were utter failures so far as the amelioration of the conditions of society is concerned. It is generally said that social energy with no progressive result is due to these great religious systems having stimulated only the non-progressive factors, the feelings, and not the intellectual factor, without the operation of which social progress is impossible. We now see the difference between social existence and social progress. The Orient is an illustration of the fact that social existence may continue indefinitely without anything that could properly be called progress. In the Occidental world we are so accustomed to the idea of progress that we imagine it to be universal, but the Eastern world is non-progressive, and so far from desiring progress, it hates and despises it.

Ward's theory is that while action proceeds from the feelings, the question as to whether the action thus generated will be static—leaving society where it is—or dynamic — driving society forward — depends upon whether the action is or is not guided by the intellect. That there may be no doubt as to Ward's conceding the intellect to be the sole source of progress, we quote the following:

"And when I assert that all the control that can ever be exerted over mankind must, in the future as in the past, emanate from the side of feeling and not of intellect, and promise a mitigation of the hardships of existence, at the same time I unqualifiedly maintain that all the true progress which has in fact taken place in the world has come from the side of intellect and not of feeling."

The terms civilization and social progress mean practically the same thing. Civilization is artificial; in this it differs from organic phenomena, which is natural. This difference between the natural world of biology and the artificial world of sociology finds expression as follows: In the animal world a change is produced by the action of environment upon the animal. The animal being devoid of the intellectual faculty, at least in any degree sufficient to make progress possible, must adapt itself to its environment or perish. In the human social world this process is to a considerable extent reversed. Man, by means of his intellect, is able to act effectively upon his environment. This is expressed by Ward in the following formula: "The environment transforms the animal while man transforms the environment." Civilization, according to Ward, consists in achievement. Achievement is purely human; the animal achieves nothing; the organic world is passive. The achievement which constitutes civilization is in a certain given direction; it comprises all efforts which have succeeded in utilizing the materials and forces of nature to human advantage. This is accomplished by means of inventions. Therefore, civilization may be said to consist of inventions, as it is said to consist of achievements. There can be no question that inventions are due to the operations of the intellect; the feelings, or emotions, invent nothing.

The struggle for existence is universal, as Darwin has shown. The history of the human race is the record of man's struggle against the universe; a struggle of the microcosm against the macrocosm. Man has succeeded

where the animal failed, because he was armed with a superior weapon—the intellect. The difference between the savage and the civilized man is not a difference of feelings or appetites, it is a difference of intellect. The difference between the feelings and appetites of civilized man, and animals far below the savage, is not very considerable. The love of a human mother for her child is not, so far as can be seen, any greater or more sincere than that of a lioness for her cubs; nor is there any difference of food hunger. The difference of condition between the animal in the jungle and men enjoying the pleasures and refinements of civilized life, is due solely to a difference of intellectual faculties.

The first great victory of man over the cosmos was his mastery of fire. It is probable that long before he knew how to kindle a fire he learned to keep one alive after it had been kindled by lightning or the sun; but even this has never been achieved by any animal below man. Travelers relate that monkeys will hover about a camp and when it is deserted will gather with keen enjoyment about the camp-fire. Although they are next to man in psychic equipment, and although they have observed men piling fuel upon the fire and are themselves adapted to the handling of twigs and boughs, they are utterly incapable of keeping the fire alive. They have much the same emotional equipment, but they are wholly lacking in intellectual capacity. It is because animals are the slaves of their environment that they can only live in such parts of the globe as possess a suitable climate. If the climate changes, they must migrate. Even the change from summer to winter pro-

duces vast migrations in the animal world, but because man pessesses an intellect which enables him to invent clothes and houses he can live where he pleases, within certain limits, and this is how he comes to be so generally distributed over the surface of the planet.

After the savage had invented the art of making fire by rubbing two sticks together, the value of his achievement did not consist of the fires that were actually burning, but of his knowledge of how to make other fires should these go out. In the same way, in the modern world, the value of the machine process of wealth production does not consist of the machines in actual existence and operation but in the knowledge of how to make machinery and how, by the use of machinery, to produce great varieties of useful articles. The achievement which constitutes civilization consists, therefore, of a great mass of items of knowledge, steadily accumulated throughout history. Every age has inherited the achievements of the preceding age and has stood upon them as upon a platform, and that age, by means of its own achievements, built a new platform a little higher. Thus, in the language of Ward, "the platforms of the previous ages become the steps in the great stairway of civilization and these steps remain unmoved and are perpetuated by human history."

CHAPTER XVI

WARD'S SCHEME OF THE SOCIAL PROCESS

In this chapter, we shall present the reader with a summary of the most complete scheme of the social process which we have met with in the entire range of the literature of sociology. It is the scheme presented by Lester F. Ward in the second volume of "Dynamic Sociology."

HAPPINESS

Ward begins by asking what it is that constitutes the ultimate goal of all human endeavor. What is it that all the sons of men are forever pursuing, as the medieval knights pursued the Holy Grail and the Golden Fleece? Ward finds the answer in a single word—"happiness." "At the basis of every philosophical system involving the interests of men lie the phenomena of feeling. These phenomena constitute the substratum of sociology." Society rests upon feeling as the city stands upon the ground. The importance and significance of the phenomena of feeling are not limited to sociology, but reach back into biology. The world of life has two main divisions—vegetable and animal. Between these two there is no clear dividing line, and probably the safest principle of classification is to determine the plant from the animal by the presence of feeling in the one and the absence of feeling in the other. In other words, it is the difference between the sentient and insentient. The evolution of life from the

insentient to the sentient is one of the great strides in the cosmic process. The origin and development of feeling is one of the grand problems of biology. Its explanation is to be found in the natural selection theory of Darwin. Capacity for feeling gave the creature possessing it an advantage in the struggle for existence. Creatures of keen feeling were quick to avoid pain, which is the highway to death, and eager for pleasure, which is the path to life. Feeling has two sides, a positive and a negative. The positive side is the love of pleasure, the negative is the fear of pain. Without feeling there would be no intimation of danger, and frequent exposures to dangers would result in time in the utter extinction of every form of life. The pleasures of eating and the pleasures of sex are the two influences which, on the positive side, preserve and perpetuate all the higher forms of life. The forces which protect life are not the love of life or the desire to live nor yet the dread of death. They are the love of pleasure and the dread of pain. If the hare flees from the hound it is not because of the fear of death or the love of life. The hare knows nothing about the phenomena of death. Its flight is urged by the dread of pain which it knows would be inflicted by the teeth of the dog. In the same way the child avoids the fire or the hot stove, not out of fear for its life, but in fear of the pain that accompanies burning. We have seen in a prior chapter that men eat because hunger is a pain which they seek to remove, and the process of eating produces a distinct pleasure from the gustatory nerves. If there were neither pleasure nor pain connected with eating, living forms would vanish through starvation. The same is

true of the functions of sex, and any attempt to persuade men and women to increase the population from any such abstract motive as the good of the state could only issue from the uninformed mind of a Roosevelt.

The only reason acts that are performed to avoid pain have the effect of preserving life is to be found in the close relation of death and pain. We all recognize that intense and prolonged pain must result in death. This recognition is not based on logic. It is quite conceivable so far as our laws of thought are concerned that a creature might be in pain indefinitely and still escape death, but experience tells a different story. All our experience shows that wherever pain is intense and unremitting, death is the result. Religionists who depict future states of eternal tortures and never-ending hells have a conception that is purely logical, but that is in direct contradiction to all experience.

All animal life has two great necessities, nutrition and reproduction. Human social life marks the appearance of a third, development or improvement. The first two are absolutely necessary, and we are beginning to recognize more and more the importance of the third. The principle of development has occupied a high place since the establishing of the theory of evolution. The development process is now recognized as universal—nothing stands still. China may seem to stand still for a thousand centuries, but a closer examination will reveal some movement. A nebular mass may show little change in a million years, but it is changing nevertheless. Change is the law of all things. This law was formulated by Spencer as "the instability of the homo-

geneous." Development is especially important for human society, because, as we shall presently see, development is the chief means by which we are able to increase the sum of human pleasure. In seeking to increase pleasurable feelings and avoid painful feelings, we are seeking by a double road the one end, happiness. Happiness is defined by Ward as "excess of pleasure, or enjoyment, over pain, or discomfort." This brings us to what Ward calls the first theorem of dynamic sociology, which theorem is expressed in the following formula: "Happiness is the ultimate end of conation."

The word conation may be new to the reader. It is from the Latin *conari,* which means "to endeavor." Ward's first theorem then means that happiness is the ultimate end and aim of all human effort or endeavor. This passage places Ward among the utilitarians, to whom the end of action is the greatest good of the greatest number. When social class divisions are abolished and antagonistic interests have disappeared, the utilitarian formula may be enlarged to "the greatest good of all." Having found the aim and goal of all human effort, our next task is to find how the existing sum of happiness may be increased.

PROGRESS

The answer to the above question as to how happiness may be increased is given by Ward in the word "progress." Progress is defined as "success in harmonizing natural phenomena with human advantage." So closely are happiness and progress lashed together, in the estimation of Ward, that he is willing to accept as

a definition of social progress whatever increases the sum total of human happiness. The grand difference between happiness and progress is that happiness is the end, while progress is the means. If we ask, What is progress good for? we may answer, Progress is good because it is a means to increase human happiness; but, if we ask, What is happiness good for? there is no answer. Happiness is good, not as a means to something else, but for what it is in itself.

Progress has its origin in the fact that throughout the living world possibility is always in excess of opportunity. Among animals reproduction encroaches upon nutrition; population intrenches upon the means of subsistence. Creatures bring forth a million eggs but the population does not increase a million times, it remains stationary, because of a fixed food supply. The desire for expansion and the infinite possibilities for expansion which are bound up in the life substance itself are constantly meeting with checks and limitations. As brain power develops and powers of perception increase, there also grows a steady dissatisfaction with these checks and limitations and an ever increasing desire to remove them. It is the removal of these barriers of environment which constitutes progress. One of the first steps in progress is to remove the barrier of a limited food supply. In fact there is no progress until this is done, and, as no animal below man has been equal to this task, progress is strictly limited to the human family. All the barriers in the way of human advancement have been removed by exertion of the intellect. The barrier of a limited food supply was abolished by

the invention of agriculture. Another barrier to advancement from the animal stage consisted of the presence of powerful enemies. This barrier man abolished by the invention of weapons. The great results arising from these two causes alone may be seen in the domestic animals. When the animal is taken from its native wilds, it is removed from scarcity of food and a plenitude of enemies and placed in a condition where the food supply is unlimited and its enemies are absent. In other words, under domestication it reaps the advantage which progress has obtained by breaking down the barriers of the natural environment. The effects upon animals are immediate and pronounced. Forces of development which exist in all animals in excess of their limited opportunities are immediately given free play. They become sleek and large and heavy. The savage viciousness which was developed by the struggle for food disappears and gentleness and affection take its place. When domesticated animals are returned to the state of nature they rapidly revert to their former condition. They become lean and gaunt and savage. This is because they are no longer able to reap the advantages of human progress. They are once more the slaves of an environment which limits their food supply, surrounds them with destructive enemies, and thereby restricts the development of which they are eminently capable. What is true of animals in this way is true in a very much larger degree of mankind.

Human progress has moved along two chief lines: first, the increase of power to extract from nature additional supplies of the necessaries of life. This Ward

sums up under the general head "subsistence." The other development grows out of the necessity of men who are interdependent upon each other being able to communicate with each other, and is summed up by Ward in the word "communication." Under the head of "communication" Ward discusses the origin and development of language. In the direction of increased possibilities of subsistence, progress has been achieved by invention. Invention led to the arts. Very early came the arts of hunting and fishing; later the art of agriculture, and finally the highest art bearing on subsistence, the art of manufacture. Progressive factors were those sciences out of which sprang arts—as navigation, which is the basis of commerce, sprang from the science of astronomy. All civilization is artificial—based on arts. Ward finds his non-progressive factors in government and religion. The sciences are sources of progress because they are correct interpretations of our natural environment, and, as they enable us to understand our natural environment, they are the necessary preliminaries to the arts which enable us to go further and transform the environment; but the transformation of art could not be wrought without the understanding furnished by science. Religion is condemned as a non-progressive factor, because it is a collection of errors about our environment. In his consideration of religion Ward has the following interesting illustration:

"If a convention of all the religions on the globe were to be called, each sect being represented by one delegate, and the question were to be voted upon in the case of each religion separately, Is this religion true? or, Is this religion beneficial to man? the result would inevita-

bly be that only one affirmative vote would be cast in each case, and that would be the vote of the delegate of the particular religion upon which the vote was taken; and, if the action of this convention with regard to the feasibility of preserving or abolishing religions could be conclusive, it would be found that all the religions of the world would be overwhelmingly voted down and abolished, and this by the action of avowed religionists alone."

The whole question of religion is extensively discussed by Ward under the head of "progress." The object of the discussion is to discover whether religion should be considered as a progressive or a non-progressive influence in the social process. Ward arrives at the following conclusion:

"Upon the whole, therefore, we must conclude that there is no direction in which the belief in spiritual beings has advanced the temporal interests of mankind, and that therefore such belief, if it is of any advantage to the race, must be so in virtue of gains which it is to bring in a future state of existence—a field of discussion which, of course, lies outside of the province of this work and of all scientific investigation. It further appears that the real advantages which seem to flow from some of the modern forms of such belief are really due to the action of other and quite distinct agencies which have been so adroitly affiliated upon it as to create the impression that they have grown out of it. In the case of morality, we have seen how far this impression is from being true. The affiliation has been accomplished as a protection to systems of belief which would otherwise have lost their hold upon mankind."

And speaking still more positively:

"Whatever may be the benefits which supernatural be-

liefs have conferred and are to confer upon man in a future state of existence, they have not only conferred none upon him in the present state, but have demonstrably impeded his upward course throughout his entire career."

It must be admitted that there is an evident contradiction between this positively asserted position and Ward's contention, advanced in "Pure Sociology," that "religion must have been primarily an advantageous social structure, otherwise it could not have come into existence."

Progress consists in breaking down the limits of environment by inventions of improved means of communication and subsistence, or, as Marx would state it, in the improvement of the means of production and exchange.

ACTION

We now come to another question: If progress is the source of increasing happiness, what is the source of progress? To this question Ward answers, "action." It is obvious, however, that not all action leads to progress. The particular kind of action that leads to progress is dynamical action; statical actions are not productive of progress. The difference between dynamical actions and statical actions is that statical actions are natural, while dynamical actions are artificial. The action of eating to satisfy hunger is natural, but it has no tendency to progress. Artificial actions, such as the development of wild grasses into cereals and producing these in crops to increase the food supply, are progressive or dynamical. The greater part of Ward's study

of this question is devoted to showing that dynamic actions are all based on the indirect or intellectual method of effort. "Dynamical actions are distinguished from statical actions in proceeding according to the indirect or intellectual method of conation (effort) instead of the direct, or physical method." The exposition of what Ward calls "the indirect method" occupies a large and prominent place in all of his work. It is much too important a question to be disposed of in this section and will, therefore, be made the subject of the next chapter.

"Dynamic actions may be subdivided into two groups, according as they are performed by individuals or small groups, or by society at large." Ward explains that thus far nearly all dynamic actions have been performed either by individuals or small groups of individuals. This is because the inventive factulty which operates to produce dynamic action requires a considerable development of independence in its exercise, whereas when many men get together in bodies of any size to decide upon any action, there frequently results a degree of confusion incompatible with the adoption of any rational scheme. This leads Ward to make the following criticism of deliberative bodies:

"Deliberative bodies rarely enact any measures which involve the application of the indirect method. If individual members who have worked such schemes out by themselves propose them in such bodies, the confusion of discordant minds, coupled with the usual preponderance of inferior ones, almost always defeats their adoption."

This is followed by several suggestions as to how "true" deliberative bodies may act dynamically in the

future. The most potent of these suggestions is, that inasmuch as in all democratic societies the actions of legislative bodies are controlled by constituencies, and can only move as the constituencies allow them to move, the only method of making scientific legislation possible is the dissemination of scientific knowledge throughout the constituencies.

The previous absence of scientific knowledge, especially scientific knowledge of the nature of the social forces, is responsible for the fact that almost all acts performed so far by the social organism have belonged to the static class. The hope of the future lies in the scientific education of the mass of men and the conducting of legislative bodies on a basis similar to that which obtains in scientific bodies and with the complete absence of the partisan spirit which is typical of party politics.

OPINION

We now see that happiness is the child of progress; progress the child of action, and the query arises, Where shall we look for the parent of action? Ward finds the answer in "opinion." The chapter in which opinion is considered as a link in this chain is especially luminous and we recommend the reader to make himself acquainted with it at the earliest opportunity. "The value of human action," says Ward, "will chiefly depend upon two qualities residing in human opinions. First, their correctness; second, the importance of their subject-matter." Ward argues with great force that what is needed is not unity of opinion but correctness of opinion. The important thing about an opinion is not whether it is

generally accepted, but whether it is true. A generally accepted error has more than once in human history resulted in incalculable disaster. The hundreds of thousands of women who were burned or drowned because of the general belief in witchcraft and the general acceptance of the biblical injunction "thou shalt not suffer a witch to live" is a case in point. Equally fallacious is the opposite idea that there is something to be dreaded in complete harmony of opinion and that mere "difference of opinion exerts a wholesome influence upon intellectual and social progress and that unity of views upon the chief topics of any age would result in mental stagnation and social degeneration." Many instances of settled unity of opinion are cited:

"The heliocentric theory was long the battlefield of opinions even by astronomers themselves. Opinion respecting it has now become so far settled that there is no educated person, not even in orders, who honestly questions it; and a modern work, claiming seriously to challenge its truth, was simply an object of general ridicule. There is little more chance for the truth which Galileo recanted before a grave consistory of learned prelates ever to be again seriously questioned than there is that it will some time be denied that a right line joining two points is the shortest distance between them."

And in geology:

"There remains no one to gainsay the assertion that stratified deposits found upon high mountains were once at the bottom of the sea, where they were formed. No one any longer disputes that the fossils found in such positions were once living creatures inhabiting the sea. And, while no one can say with any degree of definiteness how long ago these fossils lived, scarcely a culti-

vated man can be found who honestly doubts that it must have been, in most cases, very much more than the long-claimed six thousand years."

* * * * * *

"We might go in like manner through all the established sciences: physics, with its law of gravitation; chemistry, with its laws of proportions and elective affinities; biology, with its law of deterioration through interbreeding—all now settled, though once disputed."

Ward asks if any of these settled propositions in science can be shown to have any tendency to produce "intellectual stagnation or social degeneracy?"

He remarks that it is an obvious fact that most actual differences of opinion are wholly unnecessary, the data for their complete settlement being in existence. Men hold incorrect opinions all through life, opinions which influence their actions against the interests of progress when the correct opinions have been in existence and easily accessible for years and, in some cases, for centuries. The individual is not to blame; it is a defect of the social organism which should have prevented it by the process of education and which would have been a great gainer thereby. It is indeed pitiful that men and women should still be born into the world and in their infancy inoculated with ideas which scientific men have known for a certainty for decades or centuries to be nothing better than so many absolute lies. In view of this Ward writes a brief paragraph which deserves close attention:

"In the present state of society, a small class of advanced minds simply look on and smile at the mad surge of bitter polemic that engrosses the great mass. To them the truth has been long patent, and may have become trite. Powerless to extend it to the rest of the world

they are tempted to regard the 'common herd' as they would regard a drove of cattle on their way to the slaughter-house."

Following this is an exceedingly valuable discussion of the nature of truth, the origin of opinion, etc. It is clearly shown, as is of course now understood by all the well informed, that opinions are not produced by the will, that men cannot believe things because they wish or will to do so; nor can they recant opinions they hold, in obedience to their own wills or the imposed wills of others. Yet, this idea generally prevailed in the Middle Ages. "Imagine," says Ward, "a Roman Catholic zealot philosophizing with himself whether he could, by an act of his will, accept the heresies of Martin Luther! And yet nothing was more clearly established in his mind than that those heretics could return to the doctrines of the Universal Church the moment they should will to do so."

We shall now pass directly to Ward's treatment of such ideas or opinions as lead to dynamic or progressive action. These are called dynamic ideas or dynamic opinions. They belong chiefly to four great classes, which follow in their classification the order of the sciences presented by Comte and Spencer and given in the earlier chapters of this book. These four classes of ideas are:

1. Cosmological ideas.
2. Biological ideas.
3. Anthropological ideas.
4. Sociological ideas.

For lack of space, we shall here confine ourselves to the first order given in the above classification.

The effect of opinions about the material universe in producing progressive or non-progressive actions in the individuals who entertain them is argued by Ward as follows:

"First, in order to live in the most advantageous way, sound views of the material universe must prevail. So long as man's conceptions of the universe are erroneous, he will pursue a wayward if not a downward course. If they are too narrow, and he believes that all existing things are within the range of his vision, his conduct will be correspondingly narrowed. If he believes the world of short duration, both in the past and in the future, this too will dwarf all his undertakings, and make an end of progress. If he regards nature as consisting of a multitude of animated powers impending over him, he will waste all his energies in seeking to propitiate these powers. If he deems them evil, terror will demoralize him and make life a burden. If he conceives the universe to be watched over by beneficent powers, he will be apt to resign all initiative effort to them, and relapse into a condition of complete stagnation."

Those who hold that there is no relation between the measurement of the sun, and the vast distances between the planets, and human conduct in society are answered thus:

"Proper conceptions of the relative magnitude of the sun and earth help immensely to tone down human arrogance and to make men behave properly. Some may smile at such a statement, but they need only to remember that, down to the time when this and other kindred truths were forced by science upon the world, the most moral and enlightened men in the most advanced portion of the earth were decreeing the torture and execution of their fellow-men for disbelief in certain doctrinal tenets not possessing the least intrinsic merit; and scarce-

ly any one now doubts that the immense liberalization of the world which has taken place during the last three centuries has been chiefly due to the expansion of men's views rendered possible by the discoveries of science."

Elsewhere in his work Ward develops at length, that men's opinions as to the attitude of the universe toward mankind are vital in social progress. In this regard science has shown that the universe is not for us, and that therefore we cannot depend upon its doing what we must needs do for ourselves. Neither is it against us, so that we need not despair that our efforts will be thwarted. The truth is that the universe occupies a purely neutral position. It neither knows nor cares anything about the human race. It has no intelligence; it constitutes simply a vast mass of raw material, so that whether men grope in benighted savagery, or realize the loftiest millenial dreams of civilization, depends entirely upon their own efforts. This opinion, which is eminently scientific, is a clear example of what constitutes a dynamic opinion, inasmuch as its acceptance cannot but lead the man accepting it to wage a fearless struggle with nature in that increasing conquest of its forces and that cumulative appropriation of its materials which constitute the very essences of progress.

KNOWLEDGE

"In the four preceding chapters," Ward says, "we have seen that human progress, measured by the degree of happiness conferred, has been accomplished altogether by appropriate human actions, dictated by rational thoughts." The next problem is to find the basis of rational thoughts, or as they are called in the classification, dynamic opinions. Ward's answer is "knowledge."

In the chapter devoted to this fifth link in the chain, there is an exceedingly interesting and valuable discussion of the nature of intellect and intelligence. We can only give a bare outline here, and once more the reader is urged to acquaint himself with the full treatment in the original. 'The intellect is mental power; knowledge is the material upon which this power is exerted, and the compound result of the combination is intelligence. The great need of society is an increase of intelligence The problem is to find out how this can be accomplished. Inasmuch as intelligence is a compound, resulting from an admixture of intellect and knowledge, the question arises as to which of these two things we stand most in need in order to increase our supply of the derived product. Have we sufficient intellectual capacity and a lack of knowledge? or have we a surplus of knowledge with a lack of intellectual power? According to the answers we give to these questions, our energies will be directed in the one or the other of these channels. In deciding this question, we must find which is the element lacking and what are the possibilities of supplying the need. Ward decides that we do not lack on the side of intellect; that the intellectual capacity of the mass of men in the modern world is more than enough for any demands of the present or the immediate future. While this may not apply to the lower races still in existence, it is certainly the case with the peoples of Europe and America:

"The intellect of Western Europe is still capable of easily digesting and thoroughly assimilating a vast amount of natural truth in addition to that now possessed by it; and all the parts of it and of America, be-

tween which the greatest inequality in this respect now exists, are capable of holding it all alike, and the proposed increase besides. The chief differences in nations, in local areas, in communities, and in individuals, is in what they *know,* and not in what they are capable of knowing. It is intelligence which so greatly varies, and not intellect; the deficiencies of backward regions are deficiencies in knowledge; the chief errors of the world as well as its chief evils, have a common origin in ignorance."

This explains the wide difference of intelligence by holding, after the manner of Helvetius, that intellect is equal and the difference in intelligence is due to some intellects being supplied with larger amounts of knowledge than others. The degree of intelligence in cities "is well known to be greatly superior to that in the rural districts. This is by no means due to the superior capacity of city populations. If there is any difference in this respect, it is probably the reverse of this. The country boy removed to the city soon becomes a city boy." The importance of cities to intelligence is due to "the atmosphere of conversation, news, reading, and thinking of a metropolis."

"From the plains of Nebraska, where the aspiring youth can only with the greatest difficulty obtain the rudiments of an education, to the great centers of life in London, Berlin, or Paris, where every night large crowds assemble to listen to technical lectures by the masters of science, there exist all degrees of difference in the mere opportunity which equal intellects enjoy for acquiring knowledge and enhancing intelligence."

The conclusion from this is that all efforts in the direction of increasing intellectual capacity are largely

superfluous. It is already present in sufficient generality and in sufficient degree for all present practical purposes. Ward therefore justly demands why energy should be expended in the direction of increasing intellect, of which we have sufficient, instead of in the direction of increasing, and especially distributing, knowledge, which is the only element lacking for the increase of intelligence. This point is forcibly made and very clearly illustrated in the following:

"Since intelligence is the real end in view, which consists only in a proper combination of the two, all increase in the one in excess of the other is without result. But we have shown that the former is already largely in excess. Why, then, insist upon adding to this, to the neglect of the other? If, in seeking to obtain a larger amount of a compound chemical, composed of two ingredients which combine in definite proportions, an excess of either one be constantly added without adding any of the other, the amount of the compound desired will never be increased. The jar may be filled with the uncombined and valueless mixture, but it represents nothing. Thus it is with the psychic progress of mankind. The only increment which counts is the increment of intelligence, represented by the maximum condition of the lesser of its two components."

It is indeed fortunate that our problem turns out thus. For, in this event, its solution is within reach and is, in a sense, comparatively easy. Indeed, if it were not that the economic interests of certain social classes stand like lions in the path, it would be no task at all. On the other hand, it is quite clear that if the thing lacking in the combination were intellectual capacity, any immediate solution of the problem would be out of

the question. As Ward points out intellectual capacity can only be increased by changes in the mass and structure of the brain, and this is a biological problem and a process requiring immense periods of time. The change in this regard during all historic time is so minute as to be practically imperceptible and a negligible quantity.

"There is a certain heroism in the fearless manner in which the human race attacks the most difficult problems. A typical instance of this kind is the attempt to develop the human intellect. The zeal with which this problem has been attacked by 'educationalists,' as well as the results, reminds us strongly of Don Quixote's war upon the windmills. Wholly ignorant of the great laws of heredity which suggest a real method, hostile for the most part to the theory of natural development, by whose contemplation alone the true difficulties of the task can be duly appreciated, these zealous reformers continue to beat the air and the sea, and fancy they are really subduing the winds and the waves."

Ward shows that there are means by which intellectual power can be increased, though this is not the imperative need. Man is far better able to improve the breeds of stock or domestic animals than to improve himself, inasmuch as any suggestion to conduct human breeding on any such scientific principles as are applied in stock breeding is immediately confronted with serious difficulties. Apart from this, the supplying of the intellect with the proper materials of knowledge to enable it to work at its highest capacity, is bound, in the course of time, to develop still higher powers. The lash is applied justly to our institutions of learning, where it is

imagined that intellectual power can be obtained by mere intellectual gymnastics.

"The system hitherto chiefly relied upon for the development of the mind may be appropriately called 'intellectual gymnastic.' It consists in exercising the intellect on sham problems in the same manner that acrobats cultivate their bodily agility. Logical tournaments and mock polemics are regularly conducted, and various forms of heated 'wrangling' are made regular exercises in the highest institutions of learning. Real objects are avoided as unnecessary, and as only belonging to serious life. It is supposed that in this way the plastic mind of youth will be 'drawn out' and made something very different from what it would otherwise be. Too frequently it is *worn out* instead, and thus unfitted entirely for the active duties of later years. That some effect is thus produced, not indeed appreciable (unless by the breaking down of the mind), during the life of the individual, but upon posterity after a series of generations, is probably true, though it is apt to show itself in the form of degeneracy or effeminacy—a fondness for the forms and shadows of things accompanied by a disregard of the substance."

The whole discussion is presented in the following summary, which deserves to be very carefully pondered:

"1. That the degree of intellectual capacity, as already spontaneously developed, is amply sufficient, in the present civilized races, to establish and conduct a thoroughly organized social system.

"2. That all attempts artificially to accelerate this development must be attended with great difficulties, and, in so far as successful, must occupy prolonged if not secular periods.

"3. That the only two methods by which this can be accomplished are, first, artificial selection, or the scien-

tific propagation of human beings—a method confronted by great practical obstacles; or, second, rational change of environment, consisting in the supply of the intellect with more and better legitimate materials to work upon, *i. e.*, increase of knowledge.

"4. That the amount of useful knowledge possessed by the average mind is far below its intellectual capacity, thus keeping the degree of intelligence correspondingly below what it might be.

"5. That the actual amount of such knowledge originated by man, though doubtless still below his ability to utilize it, is sufficient, if equally distributed, to elevate him to a relatively high position, and to awaken society to complete consciousness.

"6. That the origination of knowledge, though difficult and slow, is easier and more rapid than any possible increase of intellect can be, and may be easily made to keep pace with the latter in the future.

"7. That more immediately important than any of the other *desiderata* named, as well as far more easy of accomplishment, is the thorough distribution of the great body of valuable knowledge already extant."

We shall, for lack of space, pass Ward's theory of ethical opinions and ethical knowledge and proceed directly to dynamic knowledge. As it is dynamic action alone which makes for progress and dynamic opinion alone which leads to progressive action, so it is dynamic knowledge alone which leads to progressive opinion. All dynamic knowledge is of the scientific order, though it does not follow that all scientific knowledge is necessarily dynamic. It is resolved into two categories; scientific knowledge which is potentially dynamic, and scientific knowledge which is actually dynamic. Inasmuch as it is impossible to foresee whether a scientific discovery may be dynamic in its results, it becomes neces-

sary to pursue scientific truth in the first place for its own sake. This is why scientific pursuits attract only the highest types of minds, offering as they do no certain immediate material results. Ward illustrates this by Galvani's experiments with frog's legs, which seemed at the time of no value, but which proved to be the fundamental principle underlying the invention of the electric telegraph.

Actual dynamic knowledge is all knowledge of this character which led directly to social progress by enabling men to utilize the materials and forces of nature to their own advantage. Such knowledge as the discovery of coal and steam and electricity and the knowledge which led to the various arts which constitute the chief body of modern civilization. Knowledge that is potentially dynamic, includes knowledge of the constitution of the sun, fixed stars and nebulæ, the immense distances of space in astronomy and physics; the knowledge of the evolutionary origin of man in biology, and all such knowledge as tends to enlarge the human outlook, and instruct the human mind, thus raising it to a higher plane of thought and action. While knowledge of this order is regarded as chiefly potential, inasmuch as it has no immediate progressive results, it is also largely dynamic.

Toward the close of this section Ward has an interesting treatment of the distribution of knowledge, a subject still further elaborated in the next section. "It would be regarded as a truism," says Ward, "if not actual tautology to say that knowledge, to exert its power, must be possessed by the mind. And yet no be-

lief is more prevalent, tacit if not avowed, than that knowledge in possession of a few individuals sufficiently avails for all." Ward points out the fallacy in this notion and that "it is no more possible for one person to do another's knowing, than it would be to do his eating and drinking. A man's knowledge may make him a philanthropist, but it cannot prevent another's ignorance from making him a criminal. The knowledge which makes one class moral and upright citizens, exerts no influence to reduce the immorality of the class which is without it." Then comes an argument which will specially interest the readers of this book; dealing with the question of existing social inequalities, Ward says:

"Those who indulge the dream of a golden age of altruistic morality, when all this shall be changed, and men shall pursue the welfare of others instead of their own, are destined to disappointment, and deserve to be disappointed. Whatever improvement is made in the present system must be brought about by the development of the means of equal self-protection, and not to any marked degree by the growth of altruism."

Ward argues that the advantage of the capitalist over the laborer is due to superior intelligence, and that the inequality in the distribution of knowledge which gives the capitalist this superior intelligence works positive injury in allowing "a grasping egotism to accomplish its purpose at the expense of innocence and honesty." The conclusion is that this disadvantage on the part of subject classes can only be abolished by their acquisition of the wider knowledge, which, united with their already sufficient intellectual capacity, would produce a self-protecting intelligence. It is the idea often expressed that

things will be different when "Jack is as good as his master."

EDUCATION

To recapitulate the steps in Ward's system: We have seen that happiness is the result of progress; progress the result of action; action the result of opinion; opinion the result of knowledge. It now remains to ascertain the direct means to knowledge. Ward answers this with the word "education." This completes the series, and brings us to what he calls the initial means to the ultimate goal. We wish to say at this point, that if any treatise on education has been written which is comparable in value with this chapter by Ward, it has never come within our notice. We wish also to guard the reader against the assumption that the perusal of these brief condensations conveys any adequate notion of the immense amount of important information presented to the reader in the book from which they are taken.

The word education is used in this connection, not because it is adequate, but because it is the least objectionable of the terms available. The word, none the less, is eminently unsatisfactory, both on the ground of its etymology and its popular meaning. The etymology of the word shows that it means a "drawing out" of the mind, and this notion, and some others equally valueless, have been so widely associated with the term in the popular mind that the word gives no sufficient indication of the true function of education. The editor of the "Popular Science Monthly" is quoted as saying that "education is a leading out of the faculties." Dr.

T. Clifford Allbutt is quoted as defining education thus: "The true purpose of education is, first of all, to teach discipline—the discipline of the body and the higher discipline of the mind and heart." A learned article in the London "Times" gave the following: "Education, which might once have been defined as an endeavor to expand the intellect by the introduction of mechanically compressed facts should now be defined as an endeavor favorably to influence a vital process." These definitions and others are given to show that all current definitions fail to take note of the real function of education, as conceived by Ward. From the variety of definitions in existence, Ward compiles a catalogue, showing the different concepts of education, including his own, which is given as the last of the list. They are as follows:

1. Education of experience.
2. Education of discipline.
3. Education of culture.
4. Education of research.
5. Education of information.

All these are reviewed at length. It is argued that while the education of experience may be the only one possible on some matters, there are others in which it can be dispensed with. That at best it is an expensive method and that other methods of much less cost should take its place. Ward's criticism might be summed up in the proverb: "Experience keeps a dear school but fools will learn in no other."

Education of discipline is dismissed with the contention that it can be best secured by "the organized reception of the most important knowledge," and this is the method of No. 5—the "education of information."

The education of culture, relating as it does to artistic rather than practical knowledge, is admitted to have its place after the essential kind of education—the education of information—has been obtained.

The education of research has for its chief fallacy, the groundless assumption that truth, once discovered, will naturally diffuse itself. Its advocates, therefore, miss the real point of education, which is the diffusion of truth already ascertained. It is also shown elsewhere in the chapter, that much time is lost and much energy is uselessly expended in the field of research, because truths that have already been discovered have not been generally disseminated, and others, unacquainted with their discovery, have expended time and energy in the rediscovery of truths already known. This brings us to the fifth conception, which is Ward's own.

Education of information is defined as "a system for extending to all the members of society such of the extant knowledge of the world as may be deemed most important."

Ward proceeds upon the principle of devoting all attention to the contents of the mind and none whatever to its capacity. This attitude flows from his belief, which we consider extremely well founded, that capacity is about equal in all the normal members of civilized countries. He anticipates the objection that this may be regarded as a system of cramming. If by cramming is meant the acquisition of large quantities of knowledge, it is not to be condemned. That which is to be condemned is "the memorizing of long lists of meaningless names, and the taxing of the wits in the solution of valueless puzzles."

"The object *is* to fill the mind with truth: not to *cram* it, nor to force it, but to store it in such a systematic way with knowledge that it may make use of its stores in the production of rational thought. The idea that the mind breaks down because crammed beyond its capacity with knowledge is a gross misconception of the primary principles of psychology. It is based on some such crude assumption as that the brain is a hollow sphere and that thoughts are material gases introduced into it. The fact is that the lowest town gossip has a larger number of items of information stored away in his brain than Humboldt ever had. It requires no greater effort to know something important than something unimportant. It is not the quantity of knowledge but the quality, not the number of truths but their value, which should be chiefly considered, and the ability of the mind to acquire them forms no part of the problem."

Ward is decidedly on the side of state education, as against private education, as he is, indeed, favorably disposed to all forms of what has been called state socialism, and he takes considerable pains to show that in the matter of railroads, telegraphs, etc., state management has been uniformly superior to private enterprise. Of private education, he has the following trenchant and ironical criticism:

"In private education there is truly 'no such word as fail.' For a pupil to fail at an examination would be for the teacher to lose a patron and a part of his income. The great laws of business economics will regulate such matters as that. This is the self-regulating system. If a parent requires his son to complete his studies within a prescribed period, the teacher, on pain of having him removed to another school, will readily find means of proving his superior capacity and bringing him through with honors. Children of wealthy parents must of course

receive special favors, and those whose parents regard them as precocious must be so marked as to sustain that opinion. The variety of text-books will correspond to the variety of notions which parents hold about them, those which each used 'when he went to school,' however antiquated, being usually the only ones allowed. Such is, in brief, the general character of private education, proceeding upon the economic principles of supply and demand, the latter consisting in the desires of parents and guardians."

State education is uniformly superior for a variety of reasons, among these are the elimination of the whims of parents, and the setting of the interests of society as the goal in view. It also places "the lowest gamin of the streets on an equal footing with the pampered son of the opulent." Further, it secures in a much larger measure than private education that distribution of knowledge which is the supreme function of education.

Ward argues with great cogency in favor of education being made universal. This would prevent "the encroachments of the ignorant upon the intelligent, and also the encroachments of the intelligent upon the ignorant," and a doubt is expressed as to which of these two is the greater evil. It is also considered highly desirable, as noted in the last section, that education should be equal for laborer and capitalist. It is shown that the superior education of the capitalist enables him to avail himself of the highly developed processes of co-operation, while the less educated and therefore less intelligent laborers fight single handed and often against each other; and not only this, but the capitalist, while practicing co-operation himself, shrewdly condemns it

when practised by laborers. This point is well developed as follows:

"But the consequence is that, while the intelligent classes have co-operated and by means of co-operation have become the capitalists and employers, the ignorant classes have worked individually and independently, and have been compelled to turn over to the capitalists without any equivalent the greater part of the value they have created. In modern times the latter are able to perpetuate their hold upon the labor of the former by establishing influential organs and molding public opinion. The laborers have few if any such avenues of communication, and indeed could make little use of them if they had them. Those who are able to read at all, therefore, read the organs of the capitalists, and, unable to penetrate their sophisms, and hearing only one side, they acquiesce in, and even defend, their views. This genuine co-operation on the part of capitalists does not go by that name. In fact, it is not called anything. It is simply recognized as the only proper and successful way to do business; and such it really is. But any attempt on the part of the laboring class to co-operate on the same principle and for the same object is loudly denounced as a sort of crime against society! The laborer is actually made to believe that it is so, and the state frequently steps in to punish it as such."

In his discussion of compulsory education, Ward shows that the objection is to the word rather than to what it really means. That, since all children fail to realize the value of education, because they know nothing about it, compulsion is necessary to every form of education, whether conducted by the state or directed by parents. Ward is, of course, wholly in favor of including women on the same footing as men in the educational process;

especially is he concerned that education should be adapted to the needs of the working class:

"It must not be forgotten that a system of education, to be worthy the name, must be framed for the great proletariat. Most systems of education seem designed exclusively for the sons of wealthy gentry, who are supposed to have nothing else to do in life but seek the highest culture in the most approved and fashionable ways. But the great mass, too, need educating. They need the real, solid meat of education in the most concentrated form assimilable. They have strong mental stomachs, and little time. They can not afford to take slow, winding paths; they must move directly through. Culture they can get along without. Failures are dead losses. For them every step should count."

Ward anticipates the questions of such as might ask why, in the present social situation, he has so much to say about the equal distribution of knowledge and so little to advance about the equal distribution of wealth. His answer to this is that, if knowledge were equally distributed, inequality of wealth distribution would immediately disappear. He ventures to criticise socialists for not taking this view and argues that they are working upon the roof of their structure instead of laying its foundations. From this we judge that Ward would probably be considerably surprised to know how thoroughly socialists understand that the chief avenue to the realization of their ideals must be through proper education.

SUMMARY

We shall now present at the close what Ward presents at the beginning, a summary and recapitulation of the

scheme outlined above. The terms of this chain and their definitions are tabulated as follows:

"A. Happiness. Excess of pleasure, or enjoyment, over pain, or discomfort.

"B. Progress. Success in harmonizing natural phenomena with human advantage.

"C. Dynamic Action. Employment of the intellectual, inventive, or indirect method of conation.

"D. Dynamic Opinion. Correct views of the relations of man to the universe.

"E. Knowledge. Acquaintance with the environment.

"F. Education. Universal distribution of extant knowledge."

These six terms and their definitions lead to six corresponding theorems of dynamic sociology which are again tabulated thus:

"A. Happiness is the ultimate end of conation.

"B. Progress is the direct means to Happiness; it is, therefore, the first proximate end of conation, or primary means to the ultimate end.

"C. Dynamic Action is the direct means to Progress; it is, therefore, the second proximate end of conation, or secondary means to the ultimate end.

"D. Dynamic Opinion is the direct means to Dynamic Action; it is, therefore, the third proximate end of conation, or tertiary means to the ultimate end.

"E. Knowledge is the direct means to Dynamic Opinion; it is, therefore, the fourth proximate end of conation, or fourth means to the ultimate end.

"F. Education is the direct means to Knowledge; it is, therefore, the fifth proximate end of conation, and is the fifth and initial means to the ultimate end."

A third and last table is then given, which uses the mathematical sign of equivalence only, in this table, in

stead of reading "equal to" the mathematical sign should be read "will result in"—as, "A is the ultimate end," and "B will result in A," etc.

A. The ultimate end.

B═A.

C═B═A.

D═C═B═A.

E═D═C═B═A.

F═E═D═C═B═A.

Throughout this plotting of the social process, which is one of the triumphs of modern sociological literature, there is, as we have already intimated, considerable treatment of what Ward calls the indirect method. What Ward means by this, and the importance of the principle, we have purposely omitted from this chapter, reserving it for treatment in the next.

CHAPTER XVII

INDIRECT ACTION VS. DIRECT ACTION

As the reader travels through the invaluable books of Lester F. Ward, he perceives a theory which steadily rises in importance, until he realizes that it is one of the most important contributions of America's foremost, if not the world's foremost, sociologist. It is called the "indirect method." The difference between the blind forces of nature, the instincts of the lower animals, and all the sub-human forces, on the one hand, and human reason on the other, is that the former operate by direct action, while human reason proceeds by the indirect method. The indirect method, therefore, makes its appearance in the world of phenomena with the dawn of reason. Its appearance marks an epoch in the history of things, which, in the estimation of Ward, is of equal importance to the appearance of life through the formation of protoplasm. The direct method is the method of all animals, and it is the method of all such acts of the lower human races as might properly be called irrational or unreasoning acts. The moment reason appears and begins its operations, the direct method is discarded and the indirect method takes its place.

All social progress is due to the action of the intellect. The intellect secures progress by means of inventions, and every inventor approaches the problem by the indirect method, or what would be called in military terms, a flank movement. A huge rock is to be moved from one place to another. The savage method of mov-

ing a thing is usually that of the lower animals. When he wishes to move anything, he seizes it with his hands, as they seize it with their jaws, and the limit of ability in both cases is fixed by muscular strength. As a huge rock cannot be moved by this direct method, if it is to be moved at all, strategy must be resorted to. Strategy is essentially intellectual in its character. The savage goes directly at the end; the reasoning strategist brings his intellect into play and seeks to invent means. The nature of the indirect method is that it proceeds to its ends indirectly, through means. When the intellect has reviewed its means it begins to work, but its first operations appear to the unreasoning savage as having no bearing on or relation to the end in view. In the case of the rock of this illustration, the intellectual method, first of all, manufactures a lever and the fulcrum, or it builds a derrick. This is a round about way, that is to say, an indirect method, but it is the only one effective. In the beginning when the savage discovered the value of fish as a food, his method of fishing was direct and correspondingly ineffective. It was to plunge his arm into the stream and seize the fish with his hand, but the urgings of an appetite ill supplied led him to ponder until finally his reason led him to use means to the end. The means in question consisted of a fishing net, which is an invention, the result of strategy, indirect and effective.

When the wild grasses failed to meet the needs of an increasing population, the pondering process of the intellect was requisitioned, strategy became necessary, and agriculture was invented. It was the intellect which

came to the rescue, and its method of rescue was always the same, the invention of means to an end in place of a direct attack upon the end itself. When the savage fought his battles, striking directly with his fists he was often defeated by animals smaller than himself and all the larger animals were a menace to his existence, but as his intellect developed, it led him to the invention of means to an end, and he finally became master of his most formidable enemies by attacking them through the means of the bow and arrow, axe and spear.

The difftrence between the direct method and the indirect method is the difference between nature and art. It is illustrated by Ward, as the difference between an iceberg drifting aimlessly across the ocean and an ocean steamship plowing its way from port to port. It is the difference between a river winding and returning upon its course, and a canal following a comparatively straight line to its appointed destination. Chiaparelli saw its significance when he held, as most astronomers hold, that the canals on Mars, if they are canals, are strong presumptive evidence of the population of the planet by intelligent beings. If only rivers had been observed upon Mars, no such inference would have been justified. Rivers may exist in the absence of intelligence and the intellectual method, but canals are always means to ends; they have always a purpose; they are always the product of the intellect.

All actions, direct and indirect, have this in common, they are intended to obtain ends. The difference between direct action, which is always static and contributes nothing to progress, and indirect action, which is

always dynamic and progressive, is that in direct action between the action and the end sought by the action, nothing intervenes, while in indirect action, the intellect introduces a third element, which comes between the action and its end, and which is properly called means.

Inasmuch as direct action is the only method known to nature, and is the method chiefly practiced by the lowest savages, who depend almost entirely upon brute force, Ward calls it the physical method, while indirect action is called the intellectual method. Ward says:

"When a being, endowed with desires to be satisfied, is made acquainted with the existence of a desirable object, it is immediately prompted to move, or to put forth efforts, in the direction of that object. To such a being, another, desiring the same object, that should turn away from it and commence making adjustments in other objects lying about, would, to use the language of fable, appear extremely stupid. It would be an *unnatural* action, *i. e.*, it would be an *artificial* one. If successful in securing the end, unattainable by direct effort, it would be an exercise of true art, and would involve an acquaintance with the principles of true science."

And again:

"The several elements which were shown in the last chapter to make up human progress have all been begun and continued by dynamical actions. The great successive arts which have rendered possible the system of intercommunication which now exists, as well as the varied practical inventive arts by which the material condition of society has been perfected, have all resulted from the recognition by the human intellect of the intermediate steps necessary to be taken in order indirectly to secure these great ends which presented themselves

as remote objects beyond the reach of direct effort. They were all accomplished by the aid of means little if at all resembling the ends sought."

The scheme of the social process presented in the last chapter, beginning with education and ending with happiness, seems to excite against itself the objection that the effort expended in education at the beginning of the process and having to pass through all its terms before acting upon the ultimate end, would seem to lose much of its power in transmission. Ward, himself, says: "The principal reason why education is suspected, and its efficacy doubted, is because it is a means so remote from the end sought, that human intelligence can only with the greatest difficulty penetrate the casual relations which unite them." Such a critic would therefore be surprised to find that Ward holds precisely the opposite view and argues that this very remoteness of education from its ultimate goal, happiness, in the social process is the cause of its great efficiency, and a reason why our chief energies should be applied at that point. In Ward's estimation the objection above noted is as far from the truth, as it would be to say that the weight thrown upon the longer end of a lever would lose its power by transmission along the lever and across the fulcrum. We know, of course, that it is in the transmission that the power is multiplied. The lever stands between the action and its object, but it does not absorb the action, or if it does absorb it, it reproduces it a hundred fold. By a parity of reasoning Ward maintains that in the case of this chain of the social process, efforts to produce human happiness will be more effect-

ive as it is applied to the links nearer the beginning and remoter from the end.

The earlier part of his chapter on education is given to this question. The direct pursuit of happiness is shown to be ineffective: "The direct pursuit of happiness, even by the individual, is proverbially barren of results." "Imagine," says Ward, "a positive majority enactment simply requiring all citizens to be happy." He points out that society has often sought to apply indirect means so as to control action in such a way as to secure happiness, but these have failed, because, while they were indirect, they were not sufficiently so. History has shown that men cannot be made to change their opinions by direct coercion; something must be used as a means and that something must take the form of evidence showing the opinions to be wrong. Several pages are devoted by Ward to giving instances to show that the indirect method is the method of mathematics, physics, chemistry, and biology. Simple as this principle may seem, and little as it may impress at first consideration, Ward pronounces it "the corner stone of dynamic sociology." The failure of legislation intended to mitigate social conditions is almost invariably due to its proceeding directly instead of indirectly. Herbert Spencer was an especially keen critic of all legislative efforts at social amelioration. The basis of his criticism was that society was too complex to be directed by anything so crude as legal enactments. In criticising the temperance legislation of his time, he introduces an illustration to show that social evils can not be remedied by striking them directly with a major-

ity enactment. The comparison is so excellent an illustration of the principle we are discussing that we shall reproduce it here.

"You see that this wrought-iron plate is not quite flat; it sticks up a little here towards the left—'cockles'—as we say. How shall we flatten it? Obviously, you reply, by hitting down on the part that is prominent. Well, here is a hammer, and I give the plate a blow as you advise. Harder, you say. Still no effect. Another stroke? Well, there is one, and another, and another. The prominence remains, you see: the evil is as great as ever—greater, indeed. But this is not all. Look at the warp which the plate has got near the opposite edge. Where it was flat before it is now curved. A pretty bungle we have made of it. Instead of curing the original defect, we have produced a second. Had we asked an artisan practiced in 'planishing,' as it is called, he would have told us that no good was to be done, but only mischief, by hitting down on the projecting part. He would have taught us how to give variously-directed and specially-adjusted blows with a hammer elsewhere: so attacking the evil not by direct but by indirect actions. The required process is less simple than you thought. Even a sheet of metal is not to be successfully dealt with after those common-sense methods in which you have so much confidence. What, then, shall we say about a society? 'Do you think I am easier to be played on than a pipe?' asks Hamlet. Is humanity more readily straightened than an iron plate?"

The Prohibition propapanda is an excellent example of the utter futility of direct action. The problem is: Men drink. The remedy proposed strikes directly at the end sought, stop them from drinking. There is no consideration of the causes which lead men to drink, their miserable surroundings, over-worked bodies, and

abused nervous systems, crying for stimulants, a dull, dead monotony of life seeking variation in any way possible. These things enter not into the calculations of the Prohibitionist. If they did, he would perceive that drinking, in so far as it is dangerous, might be prevented by the use of means, the means being improved economic and social conditions, better and more prosperous homes, easy accessibility to higher education, the best music, literature, and drama, so that by comparison the saloon with its mechanical piano would lose its power to draw. But all this is too indirect and belongs too purely to the intellectual method to come within the intellectual grasp of the average Prohibitionist.

Social purity leagues, consisting largely of preachers and prominent members of their flocks, are indignant about segregated vice and organize societies for its abolition. Their method of procedure is the direct method of the savage and the lower animals. To close the segregated district, even the police with their extremely low order of intelligence have discovered, is a futile proceeding which scatters the vice, once limited to a district, throughout the city. If the purity leagues would seek for causes and begin by understanding the nature of the problem, they would probably develop their intelligence sufficiently to be able to perceive that there are means which might be employed for the abolition of the white slave traffic. But the low wages paid in department stores and a capitalist regime which automatically regulates the wages of the majority of women on the principle that whatever may be lacking for their subsistence in the pitiful pay envelopes, may be gained in

another way, do not enter into the calculations of purity leagues. To suggest to the members of these organizations to establish the economic independence of women would seem a remedy so remote from the problem in view as to have no practical bearing upon it, but it is precisely the remoteness, and the indirection of this method, which is the guarantee of its success, when society shall have the wisdom necessary for its adoption.

Direct action as a phrase has come into general use during the last few years, as the program to be applied to the solution of the labor problem. It is rather difficult to ascertain precisely what is meant by it in the utterances of its advocates. We remember seeing in a magazine, which speaks with some authority for this propaganda, something to the effect that the direct actionist is a person who is not willing to wait for the slow operation of the political process and proposes to seize the means of production and hold them for the working class. While this may be called a piece of strategy, its real nature is the total absence of strategy. The workers need the instruments of production; this is freely conceded. The direct actionist says "Take them;" the socialist says "Agreed," but his method is intellectual. To get possession of the means of production is the end in view; but all science and all history teach that in the securing of ends means must be used. and his analysis of society shows him that as the titles to the means of production are lodged with the political state and defended by all the armed powers of that state, the state is the strategical point of attack and political action is the essential means to the ultimate goal.

The more one studies the latest and highest developments of sociology, the more one is impressed with the strength and genius of Karl Marx. Marx saw that society was a process, quite clearly as Ratzenhofer. As to the necessity of analyzing social structures, he is no whit behind Spencer. He believes thoroughly, as Ward holds (see next chapter), that all social action with a view to modifying the social process and social structures must proceed from a careful objective analysis of the social forces actually in operation. When he analyzes the social process and concludes that all revolutions are fundamentally economic in their aim, but that the end cannot be secured by direct action, but must be secured by means to the end, and that, for a variety of reasons, the only effective means are political and that, therefore, the proletarian revolution, like every other revolution, while economic in its aim, must be a political revolution, he proclaims himself the greatest social philosopher of this or any other time, and vindicates Small's designation of him as the Galileo of the science of society.

CHAPTER XVIII

THE PURPOSE OF SOCIOLOGY

The superiority of the sociologists to the political economists finds its clearest expression in a keener appreciation of the paramount importance of the social problem. There is nothing mysterious or elusive about this problem. It consists of the plain fact that the masses of wage workers toil long hours, under miserable conditions, and produce the wealth of the world, receiving in return a comparatively insignificant part of the wealth they have produced, while, on the other hand, the owners of the process of wealth production and of the machinery used in the process, perform practically no labor and live in a luxury which is climbing to the proportions of an eighth wonder of the world. It may be properly argued that this luxury has an enervating effect upon the class which enjoys it, but its most terrible significance lies in the fact that it is ground from the faces of the poor. It has been thus since private property in the means of life began, and it will be thus until private property in the means of life ends. Perhaps the most powerful illustration in modern literature of this process, is that given by Oscar Wilde in "The House of Pomegranates." The picture is composed of the three dreams of the young king the night before his coronation. While recommending the reader to the perusal of them all, we have room here only for the first.

The author tells us that the mind of the young king, on the evening before his ascent to the throne, was occu-

pied in thinking of the gorgeous robe he was to wear at the coronation. The story then proceeds:

"When midnight sounded from the clock-tower he touched a bell, and his pages entered and disrobed him with much ceremony, pouring rose-water over his hands, and strewing flowers on his pillow. A few moments after they had left the room, he fell asleep.

"And as he slept he dreamed a dream, and this was his dream.

"He thought that he was standing in a long, low attic amidst the whirr and clatter of many looms. The meagre daylight peered in through the grated windows, and showed him the gaunt figures of the weavers bending over their cases. Pale, sickly-looking children were crouched on the huge cross-beams. As the shuttles dashed through the warp they lifted up the heavy battens, and when the shuttles stopped they let the battens fall and pressed the threads together. Their faces were pinched with famine, and their thin hands shook and trembled. Some haggard women were seated at a table sewing. A horrible odor filled the place. The air was foul and heavy, and the walls dripped and streamed with damp. The young King went over to one of the weavers, and stood by him and watched him. And the weaver looked at him angrily, and said, 'Why art thou watching me? Art thou a spy set on us by our master?'

"'Who is thy master?' asked the young King.

"'Our master!' cried the weaver bitterly. 'He is a man like myself. Indeed, there is but this difference between us—that he wears fine clothes while I go in rags, and that while I am weak from hunger he suffers not a little from overfeeding.'

"'The land is free,' said the young King, 'and thou art no man's slave.'

"'In war,' answered the weaver, 'the strong make slaves of the weak, and in peace the rich make slaves of

the poor. We must work to live, and they give us such mean wages that we die. We toil for them all day long, and they heap up gold in their coffers, and our children fade away before their time, and the faces of those we love become hard and evil. We tread out the grapes, and another drinks the wine. We sow the corn and our own board is empty. We have chains though no eye beholds them; and are slaves, though men call us free.'

"'Is it so with all?' he asked.

"'It is so with all,' answered the weaver, 'with the young as well as with the old, with the women as well as with the men, with the little children as well as with those who are stricken in years. The merchants grind us down, and we must needs do their bidding. The priest rides by and tells his beads, and no man has care of us. Through our sunless lanes creeps Poverty with her hungry eyes, and Sin with his sodden face follows close behind her. Misery wakes us in the morning, and Shame sits with us at night. But what are these things to thee? Thou art not one of us. Thy face is too happy.' And he turned away scowling, and threw the shuttle across the loom, and the young King saw that it was threaded with a thread of gold.

"'And a great terror seized upon him, and he said to the weaver, 'What robe is this that thou art weaving?'

"'It is the robe for the coronation of the young King,' he answered; 'what is that to thee?'

"And the young King gave a loud cry and woke, and lo! he was in his own chamber, and through the window he saw the great honey-coloured moon hanging in the dusky air."

Whatever dissent there may be as to the solution of the social problem, there is none as to its existence. Nor is there any general disagreement as to its fundamental nature among those who have probed that problem at all. It is widely agreed that between the poverty of the masses and the luxury of the few there is a

causal relation. The problem itself is co-extensive and co-eval with civilization and its insistent urging has been felt and has found expression in every field of thought. Among the poets none have spoken more clearly than Keats in "Isabella":

"With her two brothers this fair lady dwelt,
Enriched from ancestral merchandise,
And for them many a weary hand did swelt
In torched mine and noisy factories,
And many once proud-quivered loins did melt
In blood from stinging whip—with hollow eyes
Many all day in dazzling river stood
To take the rich-or'd driftings of the flood.

"For them the Ceylon diver held his breath,
And went all naked to the hungry shark;
For them his ears gushed blood; for them in death
The seal on the cold ice with piteous bark
Lay full of darts; for them alone did seethe
A thousand men in troubles wide and dark
Half ignorant they turned an easy wheel
That set sharp racks at work to pinch and peel."

Not only among poets and literary artists does this basic idea of the utter wrongness of our social arrangements find voice. Huxley, like many another scientist, saw it and realized its seriousness for the race. He said:

"Even the best of modern civilization appears to me to exhibit a condition of mankind which neither embodies any worthy ideal nor even possesses the merit of stability. I do not hesitate to express the opinion that if there is no hope of a large improvement of the condition of the greater part of the human family; if it is true that the increase of knowledge, the winning of a greater dominion over nature which is its consequence, and the wealth which follows upon that domin-

ion are to make no difference in the extent and intensity of want with its concomitant physical and moral degradation among the masses of the people, I should hail the advent of some kindly comet which would sweep the whole affair away."

And again:

"What profits it to the human Prometheus that he has stolen the fire of heaven to be his servant, and that the spirits of the earth and air obey him; if the vulture of Pauperism is eternally to tear his very vitals and keep him on the brink of destruction?"

Among the sociologists we may listen to Mr. Benjamin Kidd, author of "Social Evolution." Speaking of the Socialists, Mr. Kidd says:

"The adherents of the new faith ask, What avails it that the waste places of the earth have been turned into the highways of commerce, if the many still work and want and only the few have leisure and grow rich? What does it profit the worker that knowledge grows if all the appliances of science are not to lighten his labor? Wealth may accumulate, and public and private magnificence may have reached a point never before attained in the history of the world; but wherein is society the better, it is asked, if the Nemesis of poverty still sits like a hollow-eyed spectre at the feast?"

As might be expected, the poverty of the laborers has entered largely into the calculations of the criminologists. Enrico Ferri, the Italian master of that science, sees in poverty the chief source of crime. In "Positive Criminology" Ferri draws a pathetic picture of how poverty does its work:

"Want is the strongest poison for the human body and soul. It is the fountain head of all inhuman and antisocial feeling. Where want spreads out its wings, there the sentiments of love, of affection, of brotherhood, are impossible. Take a look at the figures of the peasant

in the far-off arid Campagna, the little government employe, the laborer, the little shopkeeper. When work is assured, when living is certain, though poor, then want, cruel want, is in the distance, and every good sentiment can germinate and develop in the human heart. The family then lives in a favorable environment, the parents agree, the children are affectionate. And when the laborer, a bronzed statue of humanity, returns from his smoky shop and meets his white-haired mother, the embodiment of half a century of immaculate virtue and heroic sacrifices, then he can, tired, but assured of his daily bread, give room to feelings of affection, and he will cordially invite his mother to share his frugal meal. But let the same man, in the same environment, be haunted by the spectre of want and lack of employment, and you will see the moral atmosphere in his family changing as from day into night. There is no work, and the laborer comes home without any wages. The wife, who does not know how to feed the children, reproaches her husband with the suffering of his family. The man, having been turned away from the doors of ten offices, feels his dignity as an honest laborer assailed in the very bosom of his own family, because he has vainly asked society for honest employment. And the bonds of affection and union are loosened in that family. Its members no longer agree. There are too many children, and when the poor old mother approaches her son, she reads in his dark and agitated mien the lack of tenderness and feels in her mother heart that her boy, poisoned by the spectre of want, is perhaps casting evil looks at her and harboring the unfilial thought: 'Better an open grave in the cemetery than one mouth more to feed at home!'"

The admiration for Lester F. Ward, which has already been displayed in this book, is based not only upon his wonderful synthetic and analytic powers, but upon his keen appreciation of the nature and seriousness of the condition of the working class. There is nothing at all

comparing with it in the standard literature of political economy, and it is an exception even among the broader thinkers of the science of sociology. Ward agrees with Huxley that social conditions are so bad that if they cannot be remedied, it would be better if some kindly comet would pass by and sweep the entire phantasmagoria out of existence. A just estimate of Ward's work in the sociological field would probably conclude that his greatest contribution is his "Applied Sociology." This decision would detract nothing from his great book "Pure Sociology." The difference between "Pure Sociology" and "Applied Sociology" is similar to the difference between pure mechanics and applied mechanics; it is the difference between theory and practice.

"Pure Sociology" relates to the science which seeks the laws of the social process, while "Applied Sociology" seeks the social arts by which the social process may be modified for human betterment. Applied sociology must build itself upon the knowledge obtained by pure sociology, as applied mechanics proceeds upon the information obtained from theoretical mechanics. We will allow Ward to explain for himself:

"Pure sociology is simply a scientific inquiry into the actual condition of society. It alone can yield true social self-consciousness. It answers the questions What, Why, and How, by furnishing the facts, the causes, and the principles of sociology. It is a means of self-orientation. When men know what they are, what forces have molded them into their present shape and character, and according to what principles of nature the creative and transforming processes have operated, they begin really to understand themselves. Not only is a mantle of charity thrown over everything that exists, such as virtually

to preclude all blame, but a rational basis is now for the first time furnished for considering to what extent and in what manner things that are not in all respects what they would like to have them may be put in the way of such modification as will bring them more into harmony with the desired state. At least it thus, and thus only, becomes possible to distinguish between those social conditions which are susceptible of modification through human action and those that are practically unalterable or are beyond the reach of human agency. In this way an enormous amount of energy otherwise wasted can be saved and concentrated upon the really feasible."

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"All this would mean a complete change in the whole method of reform. With the idea of reform has always thus far been associated that of heat rather than light. Reforms are supposed to emanate from the red end of the social spectrum and to be the product of its thermic and not of its luminous rays. But the method of passion and vituperation produces no effect. It is characteristic of the unscientific method to advocate and of the scientific method to investigate. However ardent the desire for reform may be, it can only be satisfied by dispassionate inquiry, and the realization of the warmest sentiments is only possible through the coldest logic. There either is or has been good in everything. No institution is an unmixed evil. Most of those (such as slavery, for example) that many would gladly see abolished entirely, are defended by some. But both the defenders and the assailants of such institutions usually neglect their history and the causes that created them. The hortatory method deals with theses and antitheses while the scientific method deals with syntheses. Only by the latter method is it possible to arrive at the truth common to both. Only thus can a rational basis be reached for any effective action looking to the amelioration of social conditions."

Ward is a consistent opponent of the doctrine of *laissez faire;* in this he is in striking contrast to Herbert Spencer and on the side of August Comte. He sees clearly the difference between Spencer's Manchester school politics of every man for himself, and the devil take the weak, and the position implied in Spencer's theory of the social organism, and while he naturally balks at a society so thoroughly organized on the plan of a biological organism that the members of the body politic would have no function but to serve only the interests of the whole, he perceives a point of difference between a social organism and a biological organism which breaks the analogy sufficiently to guarantee all the individual liberty that the individual man needs for his highest self-realization. In the biological organism, the sensorium or brain is centralized in a separate organ apart from the individual cells which compose the rest of the structure, while in society there is no such central sensorium, and the social consciousness is simply a consensus of the consciousness of each individual. Thus in the biological organism the centralized sensorium operates to check the interests of the parts to the advantage of the whole; in the social organism the consciousness of the parts must always compel the whole to act in the interests of the parts.

For this reason Ward has no fear of political legislative action in social affairs. If mistakes have been made, it is not because the method was wrong, but because the particular attempts were made upon insufficient data and the applied science lacked the proper foundation in the pure science. Ward thoroughly believes, and we believe with him, that when the social

forces are thoroughly understood and that understanding is widely disseminated among the members of society, it will be possible for the legislators of the future to apply the indirect method to the social forces for human advancement, as the scientists and inventors of the past have applied the indirect method to the physical forces of the universe in the creation of modern civilization. This is Professor Small's estimate of the significance of Ward's appearance in the sociological field. We quote from "General Sociology:"

"The primary meaning of Ward's appearance in the sociological field was that a bold campaign of advance was proclaimed. He virtually said: 'It is possible to know enough about the conditions of the conduct of life to guide society in a deliberate program of progress. Let us proceed, then, to organize knowledge and research, with the definite purpose of applying it to social progress. Let us not be content longer merely to analyze and describe what has taken place in the past without the assistance of knowledge at its best. Let us get familiar with the factors of human progress, and when we have learned to understand them let us use them to the utmost for human improvement.'"

Ward says that if sociology had no mission of human improvement, he would never have taken it up. Here again we shall allow Ward to speak for himself in a passage which in our estimation is unparalleled in the literature of the professional sociologists:

"I would never have taken any interest in sociology if I had not conceived that it had this mission. Pure sociology gives mankind the means of self-orientation. It teaches man what he is and how he came to be so. With this information to start with he is in position to consider his future. With a clear comprehension of what constitutes achievement he is able to see what will con-

stitute improvement. The purpose of applied sociology is to harmonize achievement with improvement. If all this achievement which constitutes civilization has really been wrought without producing any improvement in the condition of the human race, it is time that the reason for this was investigated. Applied sociology includes among its main purposes the investigation of this question. The difficulty lies in the fact that achievement is not socialized. The problem therefore is that of the socialization of achievement.

"We are told that no scheme for the equalization of men can succeed; that at first it was physical strength that determined the inequalities; that this at length gave way to the power of cunning, and that still later it became intelligence in general that determined the place of individuals in society. This last, it is maintained, is now, in the long run, in the most civilized races and the most enlightened communities, the true reason why some occupy lower and others higher positions in the natural strata of society. This, it is said, is the natural state, and is as it should be. It is moreover affirmed that being natural there is no possibility of altering it. Of course all this falls to the ground on the least analysis. For example, starting from the standpoint of achievement, it would naturally be held that there would be great injustice in robbing those who by their superior wisdom had achieved the great results upon which civilization rests and distributing the natural rewards among inferior persons who had achieved nothing. All would assent to this. And yet this is in fact practically what has been done. The whole history of the world shows that those who have achieved have received no reward. The rewards for their achievement have fallen to persons who have achieved nothing. They have simply for the most part profited by some accident of position in a complex, badly organized society, whereby, they have been permitted to claim and appropriate the fruits of the achievement of others. But no one would insist that

these fruits should all go to those who had made them possible. The fruits of achievement are incalculable in amount and endure forever. Their authors are few in number and soon pass away. They would be the last to claim an undue share. They work for all mankind and for all time, and all they ask is that all mankind shall forever benefit by their work."

The readers of this book will recognize the identity of these conclusions with the conclusion of Marx and the millions of men and women who have adopted his philosophy and who are working for a social transformation which will abolish the poverty of the masses and realize the highest hopes of the clearest thinkers among the workers of the world. We shall close this chapter and this book by once more quoting from Ward. The quotation is from a speech made in February of this year in New York at the anniversary dinner in honor of Thomas Paine, who himself said that the race will never be free so long as men work for wages:

"There is another struggle that is very intimately associated with the economic one, and that is the great important struggle of today. I call it the social struggle. When men were in the political struggle they imagined that when their political rights should be attained the millenium would be here. But they found it was nothing of the kind; that they had not reached any such state, but that there was another great struggle to be gone through, the economico-social struggle, the struggle of today. The political struggle confined itself to the third estate rising and overthrowing the first and second estates (clergy and nobility). The struggle of today is in the direction of a contest for the attainment of social and economic equality, and is the effort on the part of the fourth estate, which used to be called the proletariat—the working classes, the mass of mankind, to secure social emancipation."